

Volume 5

Pages 710 - 945

UNITED STATES DISTRICT COURT

NORTHERN DISTRICT OF CALIFORNIA

Before The Honorable William H. Alsup, Judge

| | | |
|--------------------|---|--|
| SONOS, INC., |) | |
| |) | |
| Plaintiff and |) | |
| Counter-Defendant, |) | |
| |) | |
| VS. |) | NO. C 20-6754 WHA |
| |) | Related Case No. C 21-07559 WHA |
| GOOGLE, LLC, |) | |
| |) | |
| Defendant and |) | |
| Counter-Claimant. |) | |
| _____ |) | |

San Francisco, California

Thursday, May 11, 2023

TRANSCRIPT OF JURY TRIAL PROCEEDINGS

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United States District Court - Official Reporter

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I N D E X

Thursday, May 11, 2023 - Volume 5

PLAINTIFF'S WITNESSESPAGE VOL.ALMEROOTH, KEVIN (RECALLED)

(PREVIOUSLY SWORN)

756 5

Direct Examination resumed by Mr. Shea

757 5

Cross-Examination by Mr. Pak

836 5

Redirect Examination by Mr. Shea

923 5

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1

757 5

3

757 5

4

867 5

6

877 5

115

823 5

441

776 5

442

825 5

6292

833 5

6453

785 5

6612

832 5

6698

758 5

Thursday - May 11, 2023

6:59 a.m.

P R O C E E D I N G S

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(Proceedings were heard out of the presence of the jury:)

THE CLERK: All rise. The court is now in session.

The Honorable William Alsup now presiding.

THE COURT: Good morning.

All right. Please have a seat. We have a lot of work.

The lawyers are here. The jury is not.

Thank you for coming early so we can try to sort things out.

Let me -- have you settled the case yet?

(Laughter)

MR. PAK: We're working on it, Your Honor.

THE COURT: Yeah, well, I -- do you have any major thing you want to take up before I just dive into my own agenda?

MR. PAK: No, Your Honor.

THE COURT: No. Okay.

All right. Before we get into the things that I invited you to file, there is a -- there was a filing by Sonos last night with an offer of proof; and I'm not going to make a ruling on this yet because I want to give Google a chance to make its own filing on this, which I'll ask you to do by 8:00 o'clock tonight and maybe we can discuss it tomorrow.

PROCEEDINGS

1 This has to do with willfulness and also indirect
2 infringement, and I'm going to make a few comments.

3 I want you to put yourself in the position of the poor
4 trial judge. There was a motion made by Sonos earlier to
5 allow -- I can't find her; I don't see her now -- there, the
6 General Counsel to testify and an offer of proof was made then,
7 and I made a ruling based on the record I had, which basically
8 was against Sonos' -- well, it was -- I said if Sonos tried to
9 sanitize what really happened through verbal testimony, the
10 other side could come back in and fill in the blanks and within
11 the limits of fairness.

12 I'm sorry. Who is that that's hacking and coughing?
13 Please, if you're going to hack and cough, you've got to go
14 outside. I don't want anyone in here thinking they're going to
15 get sick, and it's also hard to follow the proceedings if you
16 do that.

17 I'm sorry to say that, but it's -- you know, we've got a
18 crowded courtroom, and I don't want people thinking that
19 they're going to get sick. If you are sick, you shouldn't be
20 in here.

21 Okay. Now I've forgotten where I was. What was I saying?

22 **MR. PAK:** About the verbal testimony, Your Honor.

23 **THE COURT:** Yeah. Anyway, I ruled against that
24 position. Now I've noticed that Mr. Clem Roberts does this a
25 lot, he's done it before. He loses and then he comes back with

PROCEEDINGS

1 a better offer of proof in more detail and says he's going to
2 appeal. Well, God bless you. Good luck on appeal.

3 But I don't think it's fair to the Judge after you've made
4 one record and lose to then say, "Okay. We're now going to
5 make an offer of proof." No. You had your chance to make an
6 offer of proof, you lost; and in my opinion -- I'm now speaking
7 to the Court of Appeals -- the Court of Appeals should
8 disregard this extra, brand new offer of proof. It's just
9 another gimmick by lawyers to try to trap the judge into some
10 error.

11 So that's one point. Nevertheless, I want you to respond
12 on the merits, not just rely upon my pontifications.

13 Now, I do have a -- and I think those of you back there
14 who follow IP work, you might find this quite interesting. I
15 find it interesting. And I'm going to speak -- it's going to
16 take me about ten minutes to lay this out -- on the issue of
17 willfulness.

18 And it sounds like Sonos is saying that I have gutted
19 their case, they don't have a case on willfulness anymore in
20 light of some of my rulings. This is not true at all, but
21 the -- they do have a case. They just don't want to use it for
22 other reasons, but I'm going to -- I'm going to explain how
23 this developed.

24 Ordinarily in a lawsuit and to prove willfulness, the --
25 there would be a notice letter. There would be a notice letter

PROCEEDINGS

1 where they explain -- and it would be several months before the
2 lawsuit to give them time to look at the notice letter and say,
3 "Yeah, maybe we do infringe. Maybe we should change."

4 Or there would be some meeting or there would be some
5 discovery taken where it shows, my God, Google had the actual
6 patent right there in their own file and it's all underlined.
7 Obviously they studied it for months.

8 And so there are plenty of ways to prove willfulness; but
9 you see, what happens is lawyers have learned that if they send
10 a notice letter, a cease and desist letter, there's a gimmick
11 going on. They want to nail down jurisdiction in Texas. I'm
12 talking about Sonos, but Sonos is not the only one who's guilty
13 of this. It's rampant in the industry.

14 So they -- they don't want to file that. They don't want
15 to send that notice letter because then it invites a
16 declaratory relief action brought by the other side, by the
17 target.

18 So they sit there in their conference room at Sonos: How
19 can we avoid this problem? We want to give notice, but we
20 don't want to give too much notice because then they'll file a
21 declaratory relief case and we may lose our favorite venue.

22 So they're thinking this through, and it -- it's -- it's a
23 hard choice. So the gimmick that they come up with is: Well,
24 we'll give them a notice but we'll give it to them so soon
25 before we actually file our own lawsuit that they won't have

PROCEEDINGS

1 time to file a declaratory relief case, and we will be first in
2 Texas and then they will come along later and wherever, in this
3 case San Francisco; but it could be Delaware, it could be
4 somewhere else.

5 You see, the Defendants don't like to be in Texas, you-all
6 know that, and the Defendants like to be somewhere other than
7 Texas. In this case San Francisco, but all right.

8 So the solution from the Plaintiff point of view, the
9 patent owner point of view, is to give notice but give such
10 abbreviated notice timewise that they can say, "Oh, we gave
11 them notice" -- in this case it was a few hours -- "and then we
12 we'll file the lawsuit."

13 Now, think about it. They're -- in the notice letter
14 here, there were quite a number of patents. Yes, there was a
15 claim chart, but there were quite a number of patents.

16 And, by the way, you say in the -- there that the '885 was
17 in -- the claim chart covered the '885. That didn't even exist
18 then. That was a false statement you made in your brief, but
19 put that to one side. I think it was just a mistake on your
20 part.

21 So the gimmick is: Give them notice but give it to them
22 so soon before we file the real lawsuit, that we will be first
23 to file and, therefore, we will anchor the case in Texas. I
24 know that's what happened. They don't have to admit it, but
25 that's what happened.

PROCEEDINGS

1 Now, on the Google side there's a gimmick going on too.
2 Big firm. They've got a lot of resources. In comes the -- in
3 comes the notice letter, the e-mail; and they say, "We can do
4 this. We can file -- we can put together a declaratory relief
5 lawsuit in six hours, and we will beat them because they've got
6 to file tomorrow. We'll file today in San Francisco," which is
7 what they did.

8 So the -- that's -- what I have just described I have no
9 doubt that's what occurred here, and the -- what are the
10 consequences of that?

11 Well, there are two -- there are two consequences, and
12 both of these gimmicks work against the gimmick or, in my
13 humble opinion. Let's take the Sonos side first.

14 Sonos larded their notice letter, which only -- they only
15 had a few hours to operate in, with quite a number of patents
16 with a detailed claim chart, and there's no way, no way anyone
17 could begin to study that claim chart and to study all the --
18 it would take you a few days just to bring the accused products
19 and the literature in so you could begin to see "Do we really
20 infringe? Is it really valid? Is there a written
21 specification description?"

22 All of those things that a good lawyer would have to do,
23 there's no way you could do that in a few hours. You couldn't
24 even do it in one day. It would take, in my humble opinion,
25 several weeks to do a thorough job and be able to react and

PROCEEDINGS

1 say, "Okay. Hey, we do infringe. We better change this
2 product and change the code."

3 It takes some time if you're doing -- I used to be a
4 lawyer. I have been in that very spot. And as -- and I know
5 responsible lawyers and responsible members of the technology
6 community, they want to do it right most of the time and so
7 they study it, at least they study it to see what arguments,
8 but there's no way you could do that in a few hours.

9 I'm sorry. I'm going to wait till you're finished with
10 the distraction.

11 **MR. RICHTER:** I apologize, Your Honor.

12 **THE COURT:** All right.

13 Okay. On the -- so the notice letter of a few hours is
14 not fair. It's not practical. It's a gimmick to be able to
15 say you did give notice because the law typically says you
16 cannot give notice through the lawsuit itself. You have to
17 give notice before. So they say, "Okay. We'll give it three
18 hours before, eight hours before, one day before." It's just
19 not enough time to be practical, in my opinion.

20 And I've been practicing or on this bench for almost 50
21 years, and I've seen a lot of this. So I'm speaking from
22 experience in what ought to be the law. The Federal Circuit,
23 of course, is the boss and if they say I'm wrong, God bless
24 them. I'll salute and follow the law, but I think they would
25 agree with this.

PROCEEDINGS

1 On the Google side, here's their problem: There's a thing
2 called Rule 11 of the Federal Rules of Civil Procedure. I can
3 read it to you here, but it says this: You can't file a
4 lawsuit, you cannot file a lawsuit in federal court unless you
5 are certifying that you -- you have read it and there is a good
6 faith basis for everything in there.

7 Now, it takes weeks -- it would take weeks of work for
8 Google to have analyzed those products in those patents in
9 order to decide -- to be able to be in a position to say "We
10 don't infringe or they're invalid."

11 So forget the notice letter for a moment. Forget the --
12 the -- the gimmick that Sonos tried to pull. Just focus only
13 on the Google-side gimmick, which was to rush into court, file.

14 So the jury will be told, if this goes -- that -- I'll
15 read Rule 11 to the jury, and then the jury will -- and the
16 argument will be made, "Hey, look the judge read Rule 11 to
17 you. They had to have known about these patents. Look, they
18 filed their own lawsuit. Forget about our e-mail. We don't
19 even need that. They've known about this for a long time."
20 That's a good argument. It's a good argument. It's what's
21 called hoisted on their own petard.

22 Google was so anxious to get into San Francisco as opposed
23 to Texas they may have violated Rule 11; or if they complied
24 with Rule 11, they had notice.

25 I'm anxious to see how you solve that problem with

PROCEEDINGS

1 witnesses maybe or in your argument to the jury, but that is a
2 fair argument for Sonos to make.

3 So you see, it's gimmick against gimmick, isn't it? One
4 gimmick against the other.

5 Now I want to circle back to the Sonos side of the
6 equation. What Sonos would love to do is say "We just gave
7 them notice of one patent, the '966; and, therefore, it wasn't
8 so bad. It was just a few hours." But, yeah, the '966 -- and
9 that would be so unfair to leave the impression with the jury
10 that just one -- that that notice letter contained -- because
11 it contained volumes of technology that -- of asserted
12 technology and you infringe this, you infringe that; your
13 product this, your --

14 And they, Sonos, now wants to fix up the record. Sonos
15 wants to make it sound like, "Oh, we just told about one
16 patent, the '966." That would be so unfair, so unfair because
17 it's not what really happened. What really happened was a
18 plethora of claims were asserted.

19 So if -- what I have ruled so far is, yes, you can put in
20 the notice letter, but it's the whole letter is going to come
21 in; and then the people on the other side are going to be able
22 to say, "Hey, look, look how much homework we had to do, and
23 they expected us to do this before the lawsuit was filed the
24 next day?" No way. That would be easy. Google would win that
25 argument in my opinion.

PROCEEDINGS

1 But then Google is facing this: The other side is going
2 to be able to come back and say, "Wait. Wait a minute. You
3 filed your own lawsuit, declaratory relief, Rule 11. You must
4 have known about these for months."

5 Now, having been a practicing lawyer, I did a lot of
6 things other than patent cases. I did try three patent cases
7 but I also tried 17 other cases, and I -- I admire trial
8 lawyers. We have some excellent lawyers in this case.

9 But how are they going to -- each side has got this
10 problem. So each side is now wrangling, they're squirming
11 trying to figure out how are they going to get out of the
12 dilemma that they themselves put themselves into. So Mr. Clem
13 Roberts once again uses the gimmick of the brand new -- it's
14 called larding the record. He's larding the record saying he's
15 going to appeal. Go ahead. Appeal.

16 But I'm still saying you're free to make these willfulness
17 arguments. I'm still willing to let you put in the entire
18 notice letter if you want; but the other side is going to get
19 to say some of those patents did get declared invalid. That's
20 the full story. You don't want the jury to know that. You
21 want them to have a sanitized Sonos-leaning record. Well, it's
22 just not going -- it's going to be a fair record.

23 Okay. There was another thing that struck me about
24 your -- your motion, and that is you -- you made a motion
25 before trial, Sonos, Sonos made a motion before trial to

PROCEEDINGS

1 exclude a fair amount of the discussions that had gone on in
2 the collaboration because -- but you wanted to put in a
3 sanitized thing again, that they knew about this patent from --
4 I think it's the '966, but they knew about the '966 patent from
5 those discussions; but what you wanted to leave out was that
6 you had offered to license it for a pittance compared to what
7 you're asking for now.

8 So the other side legitimately says, "Look, look, if
9 you're going to put in one, you've got to put in the other.
10 Tell the full story."

11 Now, you're blaming me, Sonos is claiming me for having
12 granted their motion under Rule -- I said 403 -- 408, but
13 you're saying that the judge ruled this and hamstrung you, the
14 judge ruled that and hamstrung you. It's your own motion. I
15 don't think it's fair to blame me for granting your own motion.
16 I granted it in part and I -- but I did not allow you to get
17 away with that sanitized version.

18 All right. I'm not making any ruling now. I am saying --
19 I'm explaining the lay of the land, and I want you on the
20 Google side to file your opposition to that motion --

21 **MR. PAK:** Yes, Your Honor.

22 **THE COURT:** -- today by 5:00 o'clock.

23 And so you're just going to have to -- you have made this
24 mess, Mr. Sullivan, you and Mr. Clem Roberts have made this
25 mess and you're going to have to stew in it for a while. And

PROCEEDINGS

1 if it turns out that you have to make some hard choices, that's
2 why you're paid so much and you're such a good lawyer. That's
3 why you -- I'm anxious to see how you get yourself out of this
4 dilemma.

5 Yes, sir, go ahead. You can lard the record if you wish.

6 **MR. SULLIVAN:** Yes. Your Honor, only because it's my
7 birthday and I just want to make sure --

8 **THE COURT:** Congratulations.

9 **MR. SULLIVAN:** -- you don't throw me in jail. I just
10 want to make sure I have one point that maybe, Your Honor --
11 because I know there's so much facts and so much details and so
12 much paper in this case, just so the record's clear.

13 We gave them notice of the '206 patent in October of 2016.
14 Now, wait. Hold on, Your Honor. The '206 patent was one of
15 the two zone scene patents that were filed in this complaint.
16 Okay? So the '206 and the '966.

17 We added the '966 to the complaint because it issued right
18 before we were getting ready to file, but we gave them notice
19 of that same patent, that group of family, in October of 2016.

20 So it's a little unfair, Your Honor, I think for you to
21 say we didn't give them any presuit notice. We did, the fact
22 that we added that patent to this case, okay, right before
23 because it issued right before. We added it as another family
24 member to this case.

25 And now just because of the procedural history, the way it

PROCEEDINGS

1 worked out that we dropped the '206, now we're stuck with this
2 predicament. Once this Genie's out of the bottle, we can't put
3 it back in, Your Honor.

4 **THE COURT:** That's another great thing I love about
5 lawyers, is they always have a good bromide. Genie out of the
6 bottle.

7 You know, I learned when I was a trial lawyer I had a
8 whole lot of those kinds of phrases. "We're back to square
9 one, Your Honor," that's another good one. Genie out of the
10 bottle, there's always a bromide that will fit your
11 circumstances.

12 Okay. Thank you for larding the record.

13 Now I want to turn to the -- one of the things I did ask
14 about, which is the -- the terms -- I forgot now -- the
15 storage, saving, user -- there were some others in there -- the
16 claim constructions.

17 And here is one of the things that troubles me a little
18 bit, and I want you all to address -- let's start with the
19 word -- you gave me this handwritten thing, and I read it to
20 the jury because you both asked me to do it; right?

21 **MR. PAK:** Well, Your Honor, I think it was a proposal
22 by the other side, but we agreed, Your Honor.

23 **THE COURT:** All right. You -- but don't say you -- I
24 wouldn't have read it if you hadn't told me it was okay.

25 **MR. PAK:** Yes, Your Honor.

PROCEEDINGS

1 **THE COURT:** All right. Now, so I assumed you all were
2 doing the right thing here. It says for the '885 -- I'm
3 reading it again. I want everyone to follow this. I'm going
4 to be focusing on the "by the user language."

5 For the '885 patent I have determined that the phrase,
6 quote, "indication" that the first zone player has been added
7 to the zone scene -- a zone scene means, quote, "indication
8 from the network device that the zone player has been added by
9 the user to a zone scene."

10 So, now, of course, if it is added by the user, that would
11 be the normal way in which it would be added, would be by the
12 user so I have no problem with that.

13 But now I see that I have a feeling that Sonos is going to
14 say it has to be by the user and cannot be by the system. Is
15 that where we're headed? Is that the debate?

16 By -- so if the system were to say Party Mode -- Party
17 Mode is by the system or by the manufacturer not by the user.
18 I don't -- I'm not sure why this matters, but that's what -- I
19 think it does matter.

20 And, anyway, my law clerk went back and determined that I
21 never said that. I never said that. I never said "by the
22 user."

23 The -- she pulled out the -- I'm sorry -- I can't find it
24 anymore. What did I do with it? Oh, here it is.

25 I can read to you what I did say. It's in my summary

PROCEEDINGS

1 judgment order from July of last year. Page 10 I said: In
2 other words, Sonos contends that the phrase "has been added"
3 refers to the user's action that adds a speaker to a zone scene
4 after the user takes such action by, as a hypothetical example,
5 tapping "add" on the Google Home app, the network device
6 subsequently sends the join group message to the accused
7 player. This sequence of events Sonos argues satisfies the
8 "has been added" limitation.

9 Then I did say "This order again sides with Sonos."

10 All right. Now, okay. Let me continue on.

11 The plain language of the claim does not require a
12 follow-up indication memorializing that the zone player has
13 already been added to the group by an initial command so that
14 the zone player can use that information.

15 Now, it's true that Sonos' explanation referred to the
16 user doing it, and -- but I never -- I never used this exact
17 formulation that you say, "has been added by the user," as it
18 has to be the user, it can't be some other -- can't have been
19 added in some other way.

20 It was -- the example given by Sonos, using the Google
21 product, the user would be pushing those buttons. So in that
22 context, the user was correct; but it doesn't -- I never
23 actually said in claim construction that it has to be this
24 language that you have here.

25 Now, I thought you were quoting something I had actually

PROCEEDINGS

1 defined, and I regret that I took that for granted and I should
2 have checked before; but I want you to know, I feel -- I feel
3 that I -- I was -- this is a little bit beyond what I actually
4 ruled in the July order, but maybe there's some other place
5 where I did say that, and I -- and so I -- I'm ready to hear
6 it.

7 So, Counsel, please tell me where -- where does this exact
8 language come from in something I said?

9 **MR. SMITH:** Your Honor, Dan Smith on behalf of Sonos.

10 I'm having a hard time locating that exact language in the
11 order; but, if you recall, the issue that was being disputed
12 for this claim term, the indication term, had to do with Google
13 interpreting it as requiring the players being added, again
14 like at the system, and we were arguing that it had to be added
15 by the user at the controller. That was the dispute between
16 the parties.

17 And so when you sided with Sonos and you found that Sonos'
18 interpretation was correct and that Google's was incorrect, we
19 believed that that was a ruling that the players had to be
20 added by a user at the controller.

21 Now, I would be happy to have -- we'll look for the exact
22 language to see if it's in the -- if it is in the order, but
23 those were the arguments we made.

24 **THE COURT:** Well, it's at page 9 and 10.

25 (Pause in proceedings.)

PROCEEDINGS

1 **THE COURT:** The -- the -- to me, I thought that the
2 dispute was not over "user" but was over "memorialize."

3 **MR. PAK:** That was my understanding as well.

4 **THE COURT:** The -- I'll just read you -- I set forth
5 what Google said, and then the last sentence at the carryover
6 paragraph on page 10, top of 10 says (as read):

7 "Google accordingly acknowledges that its, quote,
8 "join underscore group message" instructs a speaker to
9 join a group but, nonetheless, maintains that it does not
10 memorialize that the speaker has been added to the group."
11 And then Sonos disagrees.

12 And the -- the user action was not central -- I don't
13 know. I thought this -- that I said the plain language does
14 not require follow-up indication memorializing that the zone
15 player has already been added to the group, et cetera.

16 It doesn't -- so, yes, I can see how you could make
17 argument that I said "the user," but that was a sideshow to the
18 main point of memorializing.

19 And -- so, anyway, I'm troubled that I've now told the
20 jury that it has -- that it's added by the user. Well, of
21 course it can be added by the user, but could it be added by
22 the system? I did not --

23 **MR. PAK:** Your Honor --

24 **THE COURT:** I did not mean to rule that out.

25 **MR. PAK:** -- if I could just comment briefly on this.

PROCEEDINGS

1 **THE COURT:** Yeah.

2 **MR. PAK:** I know, Your Honor, when I read that
3 language, I had what you had in mind, that this was just
4 explaining a potential scenario; and that when I went back --
5 and I did join this case a little later -- when I went back and
6 looked at the orders that were happening regarding this issue,
7 that's what I understood, that this was a dispute about whether
8 added requires memorialization of what happened something in
9 past or it was indicating that it could be added, for example,
10 by a user prior to the system getting involved.

11 I do believe there is ambiguity in the language that was
12 read to the jury. I think that if Your Honor is inclined, I
13 think that a clarification statement to the jury that this
14 language is talking about one potential scenario where the user
15 is doing action but the language itself does not require at all
16 times that the user create the zone scenes I think would be a
17 helpful clarification, Your Honor.

18 **THE COURT:** I'm -- I'm inclined to agree with you, but
19 I'm not sure yet and I'm not going to just give the jury
20 another instruction maybe until the very end.

21 **MR. PAK:** Thank you, Your Honor.

22 **THE COURT:** And I may -- I may be convinced the other
23 way before it's done, but I want to put that in -- still in
24 play. The "by the user language" is still in play in my own
25 mind.

PROCEEDINGS

1 Okay. Go ahead, Mr. Smith.

2 **MR. SMITH:** Yeah, so one more thing, Your Honor. I'd
3 encourage you if you are going to look back at the record, to
4 look at the briefing. I think in that briefing it will be
5 pretty clear that Google again was arguing that this join group
6 message can cause the player to be added to the group. Again,
7 the system adding a player to the group.

8 And we were arguing that, no, the "has been added"
9 language required the user to add the player to the group at
10 the controller. And when we made that argument, if you look in
11 the briefing, we cited to many instances in the specification
12 and I believe the specification only describes a user adding
13 the players to the zone scene at the controller.

14 That was one of the arguments we made so it was
15 effectively a claim construction argument. And our
16 understanding was that you ruled in favor of Sonos and you
17 adopted Sonos' construction of that term.

18 So it's really a claim construction issue. We'd be happy
19 to brief it again if that helps.

20 **THE COURT:** No, I don't want you to -- I'm not going
21 to say never to more briefing, but the patent claim 1 does not
22 call out user, and it's -- you are correct that the
23 specification refers to a user and explaining a way -- an
24 embodiment of how the invention would work, but the claim
25 language itself does not.

PROCEEDINGS

1 And, of course, we've all been in other cases where when
2 the claim language is broader than what's in the specification,
3 the patent owner is harping up and down, "Oh, it's not limited.
4 It's not limited. That's just an embodiment. You can't limit
5 it to the embodiment. You have to go with the claim language."

6 And now, of course, sometimes, though, the patent owner
7 says, "Oh, no, if we go that way, it's going to be invalid."
8 So they back up and go the opposite way.

9 So that's what you're doing here, is that you are --
10 you're worried about the Party Mode and -- which is predefined
11 by the system, and I had not focused on the fact that the word
12 "user" is not in there.

13 "Predefined" is in there, but is it predefined by the
14 system or the user or is it predefined only by -- I don't know.

15 **MR. PAK:** Your Honor, I -- I have done these kinds of
16 trials. We've had situations where -- and I hate to say it,
17 but, you know, to the extent there is a claim dispute --
18 understanding dispute, sometimes the courts will engage in an
19 *O2 Micro* exercise in the middle of trial. I've had that done
20 in one of my --

21 **THE COURT:** Do what?

22 **MR. PAK:** An *O2 Micro* where basically we are fighting
23 about the meaning of a claim construction, and then the judge
24 would then rule that what I meant by this language means X.

25 I would like to avoid that; but if, Your Honor, would --

PROCEEDINGS

1 **THE COURT:** I have the right to change my claim
2 construction.

3 **MR. PAK:** That's right, Your Honor.

4 **THE COURT:** I don't have to stick with something that
5 I think was wrong.

6 **MR. PAK:** Yes.

7 **THE COURT:** I can change it. Even if you've relied on
8 it, too bad.

9 **MR. PAK:** Right.

10 **THE COURT:** It's just like you don't know what the
11 final -- you never know what the final instructions to the jury
12 are until your closing argument, and you have no right to say
13 you relied on.

14 **MR. PAK:** That's right.

15 **THE COURT:** You do not. That's -- otherwise we could
16 never have a trial.

17 I learn the law and I learn the claim construction and I
18 learn about the patents as the case goes on. I have -- every
19 judge has every right to change a claim construction. Now, I
20 don't -- I wouldn't do it willy-nilly; but if I feel I made a
21 mistake, I'll fix it.

22 **MR. PAK:** Thank you, Your Honor.

23 **THE COURT:** So -- but --

24 **MR. PAK:** What --

25 **THE COURT:** -- I'm not quite there yet, but I'm

PROCEEDINGS

1 raising the question so you will know I'm worried about this
2 point.

3 **MR. PAK:** Yes, Your Honor.

4 And the one thing that we did elicit, if Your Honor
5 recalls, during Mr. Lambourne's examination, is that there's
6 some dependent claims that talk about a user interface that
7 uses the word "user."

8 **THE COURT:** In the '885?

9 **MR. PAK:** I believe it's in the '966, but I think
10 there may be similar corresponding elements. I have to take a
11 look.

12 But my point simply being to Your Honor's -- or your
13 comment, that patent lawyers sometimes draft claims where they
14 draft broadly and they leave out specific elements that may be
15 found in the specification.

16 There are other claims in these two patents that
17 specifically call out a user component. As I established in
18 the examination of Mr. Lambourne, the independent claims of
19 both patents do not use the word "user," whether it's for
20 predefining, saving, or storing.

21 So I -- I do apologize in the sense that I didn't
22 appreciate this nuance. What I thought was happening was
23 memorial -- through this --

24 **THE COURT:** Tell me -- help me understand. Why does
25 it matter here? What argument are you going to make, what

PROCEEDINGS

1 argument do you think the other side is going to make -- and
2 then I'm going to ask the same thing to Mr. Smith -- why does
3 it even matter whether it's by the user or not?

4 **MR. PAK:** Right now I don't know, to be honest,
5 Your Honor, because I haven't --

6 **THE COURT:** Yes, you do. Yes, you do. You've made a
7 big point. You're hiding the ball from me.

8 **MR. PAK:** No, Your Honor.

9 **THE COURT:** Because you asked this question, you must
10 have had a scheme in mind whenever you spent so much time on
11 it.

12 **MR. PAK:** So here's the issue, Your Honor: What I
13 mean by "I don't know" is I don't know what Dr. Almeroth will
14 say actually on the stand.

15 What I do know is this: I do know that Party Mode, based
16 on what I heard being described by Mr. Lambourne and
17 Mr. Millington, although it's predefined by the system, if you
18 recall, the user has a soft button called -- and then through
19 the soft buttons they can select Party Mode.

20 In the Sonos 2005 system, I think we have evidence now
21 establishing that even though the system predefined the
22 grouping, it is the user action of punching in that all zones
23 Party Mode, which causes all the zone players in the house to
24 be grouped together.

25 We believe that even if Your Honor were to require "by the

PROCEEDINGS

1 user" type of language to be at all times, which I didn't
2 appreciate that to be what we read to the jury, that there is
3 evidence in this case that Party Mode, as it exists in the
4 Sonos 2005 system, meets that requirement as well.

5 **THE COURT:** That's because the user pushes the button
6 and then the system does the -- figures out who's -- what zone
7 players are in the system, and then -- but it's initiated by
8 pushing the button.

9 **MR. PAK:** That's right, Your Honor.

10 So what I don't know is, I don't know what Dr. Almeroth
11 will say on the stand. I have his reports and his deposition,
12 but I don't have his trial testimony.

13 **THE COURT:** So if that's true, what is your argument
14 for invalidity?

15 **MR. PAK:** Well, that is the argument, Your Honor, that
16 Party Mode if you -- Party Mode, as it exists in the Sonos 2005
17 system, meets all of the elements of the claims. It is
18 predefined because in the code that sits --

19 **THE COURT:** Well, but is it the first predefined group
20 or the second?

21 **MR. PAK:** For both of them, Your Honor. Oh, the
22 entire system itself. Our contention, Your Honor, as you have
23 heard, is there's one zone scene that is explicitly in the
24 Sonos 2005 system and that is the Party Mode.

25 **THE COURT:** All right. So that's the first zone

PROCEEDINGS

1 scene.

2 **MR. PAK:** That's right, Your Honor.

3 **THE COURT:** All right. So what would be the second
4 zone scene?

5 **MR. PAK:** The second zone scene, Your Honor, is an
6 obviousness argument, where we're bringing in materials from
7 other pieces of prior art, including the Sonos user postings,
8 to say that it would be a trivial modification when you have
9 one zone scene and you have users telling Sonos and others that
10 "Why can't I have things like morning group or evening mode,"
11 which existed in dynamic fashion but was not saved.

12 So our position has been consistently that you could take
13 the Party Mode, make a slight modification, which would be
14 straightforward, to accommodate having two party modes. If you
15 have one that is all and you have another one, for example,
16 that -- you know, we saw the example that Your Honor discussed
17 during summary judgment context where you have a summer mode
18 that includes the outside speakers, you have one that's -- that
19 doesn't include -- that includes the outside speakers as well
20 as the inside speakers. You could take a dynamic group that
21 the user defines.

22 **THE COURT:** Well, let's do the dynamic group for a
23 minute.

24 **MR. PAK:** Yes.

25 **THE COURT:** Because you had a whole line of -- you

PROCEEDINGS

1 took 30 minutes with putting in on the Sonos 2005 system you
2 punch in two rooms, you go get coffee, you come back, and I was
3 trying to figure out what point are you getting at.

4 **MR. PAK:** Yes.

5 **THE COURT:** What is the point you were trying to get
6 at?

7 **MR. PAK:** The point is, Your Honor, there are two ways
8 for the obviousness conclusion. You could take the existing
9 Party Mode, which is one zone scene, and make a slight
10 modification, a straightforward modification, to create a Party
11 Mode that would be smaller than the full set.

12 And we also established in the Millington cross that, in
13 fact, the Sonos 2005 system allowed you to delete one of the
14 zone players in the all zones Party Mode. The one thing you
15 couldn't do was to save that smaller set.

16 So that's two way -- that's one way you can get to the
17 claims. You have one zone scene. The Sonos 2005 system allows
18 you to delete one of the zone players in that scene. Then you
19 save that. That's the piece that was missing. That would have
20 been an obvious and predictable outcome.

21 The other way to get it, and the reason why I spent so
22 much time on dynamic grouping, Your Honor, is Sonos 2005 system
23 in addition to Party Mode allowed a user to define whatever
24 group he wanted. That group by necessity overlaps with the
25 Party Mode because the Party Mode includes everything.

PROCEEDINGS

1 One thing that was missing that Sonos and Millington said
2 is, well, that's dynamic so I can't -- I didn't save that in
3 Sonos 2005.

4 Our point is, it would have been obvious to save dynamic
5 grouping as reflected by the user forum posting. If I just
6 simply save the dynamic grouping, then I would have overlapping
7 zone scenes. I would have one that's built into the system,
8 another that the user defined in the Sonos 2005 and gave it a
9 name. I just save the second one, and then I would meet all
10 the elements of the claims.

11 **THE COURT:** Well, all right. Let's say, why didn't
12 the PTO reject the patent then?

13 **MR. PAK:** Well, we're going to get into that today,
14 Your Honor, but the PTO never got to see the actual system in
15 operation, didn't get to see the code that explains how it
16 works. All they received were the user manuals, and there's
17 some important history in the prosecution history as well that
18 will be very, I think, illuminating on this point.

19 We will walk through -- one of the things that I intend to
20 do with Dr. Almeroth, which I think not only for this issue but
21 for the jury, is understanding the chain. If Your Honor
22 recalls, there's a set of continuation patents.

23 We will establish certain things about that prosecution
24 history that shows, in fact, there were many things that were
25 not before the Patent Office; and this one language about the

PROCEEDINGS

1 overlapping, the column 10 language that counsel pointed to
2 yesterday, actually is not present in many of these
3 continuation patents.

4 And so that's the type of evidence I want to develop to
5 show to the jury that the jury didn't -- that the patent
6 examiner did not have a chance to consider the Sonos system in
7 totality, and that's the thing that I want to convey.

8 So --

9 **THE COURT:** All right. What did the -- what did
10 the -- I want both of you to answer this.

11 **MR. PAK:** Yes.

12 **THE COURT:** What did the -- yeah. What did the 20 --
13 is it the '206 was the original patent?

14 **MR. PAK:** The provisional?

15 **THE COURT:** Whatever came out in 2000 --

16 **MR. PAK:** '6.

17 **THE COURT:** '6. What did it actually cover? No one's
18 ever told me that.

19 **MR. PAK:** It's very interesting, Your Honor. We're
20 going to get into it with Dr. Almeroth. I'm sort of revealing
21 my cross-examination.

22 **THE COURT:** Well, then if you're going to -- I don't
23 want you to squander your --

24 **MR. PAK:** Yes.

25 **THE COURT:** All right. Maybe you could tell me.

PROCEEDINGS

1 Mr. Smith, what did the 2006 patent cover in the first
2 place? Was it supposed to cover the original 2005 Sonos
3 system?

4 MR. SMITH: No, Your Honor. That was still a zone
5 scene patent, still covered the zone scenes that are at issue
6 here.

7 THE COURT: The 2006?

8 MR. SMITH: No, no, no, no.

9 THE COURT: What did -- the original patent that you
10 applied for, what did it -- as issued, what did it cover?

11 MR. SMITH: You're referring to the '206 patent --

12 THE COURT: Yeah.

13 MR. SMITH: -- in the chain that was asserted? That
14 did cover zone scenes.

15 THE COURT: Did not?

16 MR. SMITH: Did.

17 THE COURT: It did?

18 MR. SMITH: It did cover zone scenes, yes.

19 THE COURT: And then what does the '885 cover that's
20 new?

21 MR. SMITH: You know --

22 THE COURT: Overlapping zone scenes?

23 MR. SMITH: Well, I'd have to go back, Your Honor, and
24 look at that a little closer, but I do believe the '206 patent
25 was a little broader than the '885 or the '966 but I'd have to

PROCEEDINGS

1 go back at those claims. It's been a while since we've looked
2 at those.

3 **THE COURT:** Well, then why did you drop the '206? If
4 it covered zone scenes, why wouldn't that be a grand slam home
5 run for you? Why is that -- why did the '206 get dropped?

6 **MR. RICHTER:** Hello, Your Honor.

7 **THE COURT:** I never ruled it out, did I?

8 **MR. RICHTER:** No, that's correct. We dropped the '206
9 to narrow the case.

10 There was a claim construction dispute that the parties
11 had in Texas concerning some language. Judge Albright had
12 offered an indication that he was inclined to hold the '206
13 indefinite. He never got a chance because Google's motion to
14 transfer to San Francisco was granted.

15 And then we didn't have an order holding the '206 invalid
16 so we couldn't appeal that. So rather than try to make this
17 case any bigger than it was, we thought, hey, to streamline the
18 case, we'll just drop the '206 with prejudice. Google will
19 never see it again, and it's out.

20 **THE COURT:** All right. So --

21 **MR. RICHTER:** I --

22 **THE COURT:** Well, somehow -- I'm wondering if the jury
23 should be advised of -- in other words, how much of -- how much
24 of the -- it's the same specification.

25 So let me ask you this question: Is the world entitled to

PROCEEDINGS

1 practice what was in the original specification if it -- let's
2 say it really did qualify as an invention. Of course, it has
3 to be claimed. So the first thing that you're claiming out of
4 that 2005 specification is the '885 -- is the '966?

5 **MR. RICHTER:** So --

6 **THE COURT:** No?

7 **MR. RICHTER:** So the zone scene family has a number of
8 patents that were issued over the years stemming back to -- the
9 first zone scene patent in that family was issued in 2013. It
10 was the first non-provisional in the chain.

11 So there's a number of zone scene patents. They each have
12 slightly different claims. All of them have a priority date
13 stemming from a provisional patent that was filed in 2006. So
14 the expiration of those patents will expire 20 years from the
15 filing date of the non-provisional. So no one is entitled to
16 practice the claims of any of those zone scene patents.

17 Now, I think, Your Honor --

18 **THE COURT:** Well, then why aren't those asserted here?

19 **MR. RICHTER:** Well, we couldn't assert every zone
20 scene patent in this case so we picked the ones --

21 **THE COURT:** Why not? You had a long list that you
22 sent in that e-mail. Why didn't the -- I mean, did Google
23 infringe the 2013?

24 **MR. RICHTER:** We provided notice to Google of the 2013
25 patent and I think two other patents in that family, but we

PROCEEDINGS

1 chose the '885 and the '966 because we felt that those were the
2 strongest patents in light of --

3 **THE COURT:** All right.

4 **MR. RICHTER:** Yeah.

5 **MR. PAK:** I'll just make note -- one note, Your Honor,
6 just to make the record clear. It's not 9344206. That patent
7 claim does not require overlapping zone scenes; and if you look
8 at the front page of that patent, it does not include any of
9 the Sonos user manuals for the 2005 system.

10 There's another issue that I will get into with
11 Dr. Almeroth about the 2006 provisional, which this whole
12 continuation chain goes back to. And if I had the timeline, I
13 could display it for Your Honor, but that 2006 provisional,
14 Your Honor, is also relevant to this issue.

15 So I think lot of this will be put on the record when I
16 cross examine Dr. Almeroth, but I will note that there is
17 important claim language difference across this chain. There's
18 also very important difference in which prior art materials
19 were submitted to the Patent Office when different members of
20 the continuation chain were being prosecuted.

21 So I think Your Honor's focusing on the right things,
22 which is: Is there a written description support going all the
23 way back to 2006? First question.

24 On the '206 patent, the language is very different. We've
25 heard so much about the overlapping zone scenes as being a

PROCEEDINGS

1 point of distinction. That claim, the independent claim of the
2 '206, does not require overlapping. It says "one or more zone
3 scenes."

4 So that's something that I think we need to look at pretty
5 carefully, but I would -- again, I think that this issue is one
6 of the reasons why we're looking forward to the submission
7 later today that Your Honor asked for on whether there is
8 written description support for the overlapping zone scenes
9 issue and whether that Your Honor's prior ruling could possibly
10 be reconsidered to allow us to try the issue of written
11 description to the jury because we do think there are some
12 important facts on that point in terms of going back to the
13 earlier date that they're relying on, which is the provisional
14 2006 date.

15 **THE COURT:** Well, okay. You're going a bit beyond
16 what I -- my question, but thank you for that information.

17 **MR. PAK:** Yes, sir.

18 **THE COURT:** But here is what I want both sides to --
19 I'm -- I try to listen to the evidence as it comes in and put
20 myself in the position of the jury and how can we help them
21 understand it better.

22 And so they've heard this so far: That Sonos came out
23 with a good product in 2005. I don't think anyone doubts that.
24 It's a good product.

25 Second, Google came out with the same idea in 2013; but

PROCEEDINGS

1 before Google did that, Sonos applied for a patent and the
2 specification we've been looking at applied for a patent and
3 got it back in 2006 or so.

4 They've never seen that patent, but they -- but if you put
5 all that together in a simplistic way, the jury could be
6 thinking, "Hey, Google is infringing the Sonos product, which
7 is covered by this earlier patent. End of story. Google
8 loses."

9 Now, that's not the way it's supposed to work, but that's
10 what I was thinking. I was saying, you know, why isn't that
11 right? Why isn't that right? Why isn't that Google -- you
12 didn't come out until 2013. Why isn't it that Google infringed
13 the original patent?

14 And that's why I'm asking. I haven't even -- I've never
15 seen that original patent because there's so much to learn in
16 this case.

17 But what's your answer to -- the jury should not be
18 thinking that, but that is one way for the jury to be
19 simplistically looking at the facts of the case.

20 **MR. RICHTER:** The patents at issue in this case do
21 claim a priority date of September 2006 and a conception date
22 of December 2005. It's perfectly permissible for a patent to
23 issue later in time than an infringing system was introduced.
24 That's the point of the priority chain. It's perfectly
25 permissible for a patent to come after the issue date --

PROCEEDINGS

1 **THE COURT:** Yeah, that is true. That is true.

2 **MR. RICHTER:** -- come after, and that's what we're
3 attempting to prove. It's --

4 **THE COURT:** I also know this from 50 years of
5 practice: Every time that happens, the competitors go back to
6 their portfolios and they say "What can -- how can we convince
7 the Patent Office that we disclosed what our competitor beat us
8 to the market with" -- and then -- it's called a blocking
9 patent -- and get a blocking patent and stop Google from
10 selling this product, which you -- you know, you don't have to
11 admit that that happened, but that -- I practiced. I
12 understand that that's exactly what happens, and so Google
13 actually came up with the idea and then you went and looked
14 into yours and said, "Oh, our specification will support it."
15 And then so you convinced the PTO to give them your patent.

16 You don't have to -- I just -- don't respond. You'll just
17 admit something you shouldn't, but that's what happened.

18 However, in the jury's mind -- you're correct, it's
19 perfectly okay to do that. It is okay to do that even though
20 maybe it shouldn't be.

21 However, that's not what I'm worried that the jury is
22 thinking. I'm worried that the jury is thinking that the
23 original patent somehow, that they just got a patent. It
24 doesn't matter that they got a patent and the patent was back
25 in 2006 and so Google must have known about it because the

PROCEEDINGS

1 patent was already out there in the ether.

2 Okay. Can we -- are they all here yet? Is there anything
3 else urgent to bring up before we bring in the jury?

4 **MR. RICHTER:** One point of clarification.

5 **THE COURT:** Sure. Please go ahead.

6 **MR. RICHTER:** I need to apologize for a clarification.

7 You and I had a discussion yesterday about the
8 specification in this case and whether it's the same, and I
9 said it was the same, and that's true insofar as there's an
10 incorporation by reference in the specification to the
11 provisional.

12 However, the specification has changed in slight ways as
13 the applicant has amended the specification over the years to
14 bring in things from the provisional, which is perfectly
15 permissible under Rule 57(g). I just thought I should bring
16 that up.

17 **THE COURT:** I appreciate you telling me that, but --

18 **MR. RICHTER:** I apologize for any confusion,
19 Your Honor.

20 **THE COURT:** All right. Before you bring the jury,
21 well, then that comes back to a different point, which is --
22 and, you know, this is just my -- my -- I'm not making a ruling
23 on this, but I -- the word "overlapping" never appears in the
24 specification. It just doesn't.

25 And so when I asked the witness yesterday, he pointed to

PROCEEDINGS

1 a -- where -- to a paragraph where you could draw the inference
2 that you could do overlapping, but it doesn't say that.

3 Okay. I see the argument. But the -- the reason that
4 it's -- it's important to know if this is the original
5 specification is that I think that the written description on
6 the overlapping point is thin. I'm not saying it's fatal. I'm
7 just saying it's thin and it doesn't teach much about how to do
8 the overlapping.

9 You know, usually whenever you have a great invention like
10 the Wright brothers airplane -- or the wing, it wasn't the
11 airline -- you have detailed drawings and descriptions of why
12 it works, how it works, and how to practice it. Here, you had
13 nothing that says "overlapping."

14 Okay. Now the A team is coming in.

15 All right. Go ahead, Mr. Roberts.

16 **MR. ROBERTS:** I'm decidedly the B team, Your Honor,
17 especially this morning.

18 But what I would say -- excuse me. Clem Roberts for
19 Sonos.

20 Your Honor, we look forward to explaining this in the
21 submission tonight. To give you a brief overview, we do not --
22 Your Honor mentioned yesterday that you think overlapping
23 groups is the, quote, "heart," close quote, of the invention
24 and I think that that's not quite right.

25 What we believe, and what we have consistently shown to

PROCEEDINGS

1 the jury, is that the invention is a mechanism that allows for
2 overlapping groups. Overlapping groups is a feature of the
3 invention. It is not the invention itself. So you say, "Okay,
4 Mr. Roberts, what's the invention?"

5 Without trying to go into a point of novelty analysis,
6 Your Honor, but to just give you an overview of what we're
7 going to submit tonight, if you look at Figure 6, if you've
8 looked at how we've presented it, the core features of the
9 invention relate to separating the act of defining the zone
10 scene from invoking the zone scene.

11 What do I mean by "invoking"? When you invoke the zone
12 scene, you configure the players to be in synchronicity with
13 one another. You cause them to enter synchronicity. That's
14 what you do.

15 And you look at the claims. What the claims say is that
16 when you invoke it, you configure them for group playback in a
17 synchronous manner. That's what the claims say.

18 But by separating the act of defining the zone scene, the
19 user selects the group, gives it a thematic name, defines it;
20 and causing the zone players to synchronize, you allow for
21 overlapping groups. Why? This is just a transitive property.

22 **THE COURT:** No. It's more than allow. Claim 1
23 requires overlapping.

24 **MR. ROBERTS:** It does. So what I'm saying is, with
25 the way the claim is drafted, what the invention is this allows

PROCEEDINGS

1 for overlapping, and we claimed that feature. We also claimed
2 other features that come from this division of the definition
3 and the invocation.

4 So, for example, Your Honor, one of the things you get --
5 another thing you get in addition to the ability to create
6 overlapping groups, another thing you get as a result of this
7 division is you get the ability to keep the player in
8 standalone mode after you add it to the group.

9 Because you're not synchronizing them immediately, instead
10 you can keep the player, if you want, playing music by itself.
11 It doesn't -- when you create the group, it doesn't
12 automatically synchronize and get configured for group
13 playback, and that is also claimed in the patent.

14 So we'll explain this all in the brief tonight. We've
15 already drafted most of it. It needs to be edited a little
16 bit.

17 But my point is that overlapping groups are a result of
18 the invention. They're claimed as part of the invention. It's
19 a feature that's caused by the invention; but if you're looking
20 to understand, well, what really is the core of the technology
21 here, what's the heart of this, it's a technique for separating
22 the defining of the group from the implementation of the group.

23 And if you think about Party Mode, it gives you that exact
24 example. Because what Party Mode does, Your Honor, is Party
25 Mode, it creates the group and synchronizes the players at the

PROCEEDINGS

1 same time.

2 It doesn't have a saved group of players, an identified
3 group of players sitting around on the -- in memory. It --
4 when you -- you said this yourself. When you invoke Party
5 Mode, it goes out, it finds the players that are connected to
6 the system, and assembles them into a group. That's a dynamic
7 group. So you can't have more than one Party Mode at one time
8 because it's dynamic. If --

9 **THE COURT:** Okay.

10 **MR. ROBERTS:** Yeah.

11 **THE COURT:** Are you -- are you -- you didn't quite say
12 this, but are you saying that the synchronization technology is
13 disclosed by this patent and that that is the invention?

14 **MR. ROBERTS:** No, Your Honor.

15 **THE COURT:** Or is it -- just is it you're saying the
16 heart of the invention is predefining versus invocation?

17 **MR. ROBERTS:** Yes, I'm saying the latter. That
18 insofar as you're looking for a key to understand the patent --
19 and, of course, there's -- patents are never one single idea.
20 The claims are not defined by any one element. There's
21 multiple elements in them that all together have to be
22 considered to understand what the scope of the invention is.

23 But if you want to -- for purposes of understanding it,
24 the way we have been trying to explain it to the jury, and
25 we've been very consistent about this, is that what we do in

PROCEEDINGS

1 the patent is we separate out those two steps. And you can
2 remember we showed Figure 6. We had the first thing in blue
3 and the second thing in red during opening, this definition
4 versus invocation.

5 **THE COURT:** Okay.

6 **MR. ROBERTS:** When Mr. Almeroth was up, he did the
7 same thing with the claims, blue versus red. We're doing that
8 consistently.

9 **THE COURT:** Kind of like back in the '90s when we
10 first started using e-mails, you could define a group, like
11 everybody in the law firm, everybody on my team, you can put in
12 the names, ad hoc groups, and then you just -- you call them
13 Group 1, or whatever name you want to give them, but you didn't
14 have to invoke them right away. You would just define them and
15 then next day you would say, "Oh, I'm going to use everybody on
16 my team," and you would put in Team A, send out the e-mail. Is
17 that such a great invention?

18 **MR. ROBERTS:** So, Your Honor, what I would say is in
19 that context -- and, Mr. Pak, you don't need to laugh -- what I
20 would say in that context, Your Honor, is that there's no
21 synchronization problem; and if you hear what happened in the
22 prior art, including in Sonos' own system --

23 **THE COURT:** So you are relying on the synchronization.

24 **MR. ROBERTS:** I'm relying on -- so the claims
25 expressly call for synchronization in the second half of the

PROCEEDINGS

1 claims, absolutely. The word "synchronization" is in there.
2 It does say that.

3 And, yes, the synchronization of the speakers so that they
4 can play together in a group is required. And, again, this is
5 a function of the fact that these are smart speakers. If you
6 have hardwired speakers, you don't need to synchronize
7 anything.

8 **THE COURT:** Well, does the specification teach how to
9 do that synchronization?

10 **MR. ROBERTS:** So there is some explanation in the
11 specification about how you do the synchronization, but the
12 specific mechanism of the clock timing exchange of information
13 is not what we're claiming here. What we're claiming here as
14 the invention is separating the steps of doing the
15 synchronization from the steps of defining the group.

16 **THE COURT:** Would someone of ordinary skill in the art
17 back then have known how to do the synchronization --

18 **MR. ROBERTS:** So --

19 **THE COURT:** -- with the clock thing and all that?

20 **MR. ROBERTS:** So --

21 **THE COURT:** I mean, I think if you and I sat down, we
22 could probably get 80 percent in one hour of the steps that
23 would be needed to do synchronization.

24 **MR. ROBERTS:** So, Your Honor, actually --

25 **THE COURT:** Couldn't somebody of ordinary skill in the

PROCEEDINGS

1 art back then have figured out how to synchronize two speakers?

2 **MR. ROBERTS:** So I don't know the answer to that
3 question sitting up here today. I think that would be a great
4 question for them to ask Mr. Almeroth if they want to, but I
5 will point out that -- that the way that you do synchronization
6 in certain contexts may be more complicated than in other
7 contexts.

8 **THE COURT:** All right. That's fair.
9 In your description thing today --

10 **MR. PAK:** Yes, sir.

11 **THE COURT:** -- address the extent to which this
12 specification teaches how to synchronize. I don't think it's
13 in there, but we'll see.

14 Okay. All right. We've got to bring in the jury.

15 **MR. PAK:** Yes, Your Honor.

16 **THE COURT:** Are they ready?

17 **THE OFFICIAL REPORTER:** I'm going to need a break,
18 Your Honor.

19 **THE COURT:** Oh, our court reporter needs a break.
20 All right. We'll all take a five-minute break.

21 **THE CLERK:** Court is in recess.

22 (Recess taken at 8:02 a.m.)

23 (Proceedings resumed at 8:08 a.m.)

24 **THE CLERK:** All rise for the jury.

25 (Proceedings were heard in the presence of the jury:)

PROCEEDINGS

KEVIN ALMEROOTH,

called as a witness for the Plaintiff, having been previously
duly sworn, testified further as follows:

THE COURT: Welcome back. Have a seat. Good morning.

We have been working hard since 7:00 o'clock and trying to
find ways to streamline the case for you, and the lawyers are
doing a great job on that.

So we're going -- if you remember yesterday, we had -- is
it Dr. or Mr.?

THE WITNESS: Doctor.

THE COURT: -- Dr. Almeroth. Am I saying it right?

THE WITNESS: Yes, sir.

THE COURT: And he went to Georgia Tech and
California, and he's been giving what -- quite a bit of --
looks like 58 minutes' worth so far, not quite, a little less
than that.

And you're about halfway through your exam?

MR. SHEA: I would say about halfway, Your Honor,
maybe a touch less than that.

THE COURT: All right. So we're going to resume right
where we were yesterday.

Everybody ready over there in the jury box? Looks like
it.

Please proceed.

MR. SHEA: Thank you, Your Honor.

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1 Your Honor, just as a matter of housekeeping, we spoke
2 yesterday with Dr. Almeroth about TX1 and TX3, which are copies
3 of the two patents in suit, and I was reminded by our team that
4 I had forgotten to move those into evidence. So I'd like to
5 offer to move those into evidence now.

6 **THE COURT:** 1 and 3?

7 **MR. SHEA:** And 1 and 3, please.

8 **THE COURT:** Okay. Any objection?

9 **MR. PAK:** No, Your Honor.

10 **THE COURT:** Both received in evidence.

11 (Trial Exhibits 1 and 3 received in evidence.)

12 **DIRECT EXAMINATION (resumed)**

13 **BY MR. SHEA:**

14 **Q.** Welcome back.

15 **A.** Thank you.

16 **Q.** We left off yesterday talking starting at least to talk
17 about Google's accused products.

18 Can I have you turn to TX6698 in your binder?

19 And while you're doing that, Dr. Almeroth, I'll note that
20 what's TX6988 isn't actually -- the exhibit itself is not going
21 to be in your binder, but can you tell us what that shows?

22 **A.** Yes. It's just a one-pager. It's a representation
23 that's -- it's actually a video that comes from the YouTube
24 channel for the accused products, and it's a description of the
25 speaker group functionality I think we ended with yesterday.

1 Q. And have you seen that before?

2 A. Yes, I have.

3 MR. SHEA: Your Honor, I'd now like to move TX6698
4 into evidence.

5 MR. PAK: No objection.

6 THE COURT: Received in evidence.

7 (Trial Exhibit 6698 received in evidence.)

8 MR. SHEA: So, Your Honor, this is a video. Do I have
9 permission to publish and show the video to the jury?

10 THE COURT: Go right ahead.

11 MR. SHEA: Thank you, Your Honor.

12 THE COURT: Is this from Google? Is this a Google
13 product video?

14 MR. PAK: I believe it's about a Google product. I
15 don't know whether Google authored the video or not, but it was
16 on YouTube.

17 THE COURT: All right. Well, that's enough of an
18 explanation.

19 And how long will the video last?

20 MR. SHEA: It's just 30 seconds, Your Honor.

21 THE COURT: All right. Please roll the tape.

22 (Video was played but not reported.)

23 THE COURT: I recommend -- since it went by so fast,
24 can you -- it's only 30 seconds. Play it one more time so the
25 jury makes sure they understand it.

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(Video was played but not reported.)

THE COURT: Next question.

MR. SHEA: Thank you, Your Honor.

BY MR. SHEA:

Q. Dr. Almeroth, what did that show us?

A. It showed the steps of creating a speaker group. So the ability to identify the speakers that go into the group, the ability to give that speaker group a name, and then to be able to save that speaker group.

Q. Now, Dr. Almeroth, you mentioned earlier yesterday, in fact, that you were asked to perform an infringement analysis in this case.

Just to start, what is an infringement analysis?

A. An infringement analysis is looking at an accused product, looking at a claim and seeing if all of the limitations of the claim are met by the accused product, that it performs the invention as defined by the claim in the accused product.

Q. How does an expert like yourself go about answering the question of whether there's infringement?

A. Usually there's a two-step methodology.

Mr. Jay, if you could put my demonstratives back up. This is PDX2.23.

It's a two-step process. So on the one hand you consider the claims that are being asserted and what their meanings are, what the terms of the claims are and their meanings, and then

1 you compare them to in this case the Google products that have
2 been accused of infringement; and if those two things line-up,
3 then you have the first step of infringement.

4 **Q.** In this methodology you just mentioned, have you used that
5 before?

6 **A.** I have. I've testified in a number of cases like this.
7 I've used that same methodology a number of times and testified
8 about the results of my analysis in -- several times, many
9 times.

10 **Q.** Did you use that methodology in this case?

11 **A.** Yes, I did.

12 **Q.** So you mentioned this concept of meanings of the claims.
13 Can you tell us more about that?

14 **A.** Yes. So to consider kind of what documents to look at to
15 understand what the terms of the claims mean, you look at the
16 patents themselves, we talked about the specification and the
17 figures. And then there's also file history, which was in that
18 initial patent video. That's everything that happened from the
19 time that the patents were filed for -- till when they were
20 granted or issued, and then also claim constructions that can
21 come from the Court, definitions that are provided by the
22 Court.

23 **Q.** So, Dr. Almeroth, are there any specific claim
24 constructions that you utilized in your analysis?

25 **A.** I did. I believe that there are a couple of terms where

1 the definitions have been agreed to by the parties, and I have
2 used those definitions in performing my analysis.

3 **Q.** Dr. Almeroth, if the definitions of those would change,
4 would that change your opinion or your analysis?

5 **A.** At least for purposes of infringement, it would not. The
6 fact that, for example, the speaker groups can be defined by
7 users, saved by users, named by users, wouldn't change my
8 analysis with the fact -- with respect to the fact that
9 I believe there would still be infringement.

10 **Q.** And did you apply these agreed constructions in your
11 analysis?

12 **A.** Yes, I did.

13 **Q.** How did you interpret the rest of the terms in those
14 claims?

15 **A.** So for the rest of the claims you use the plain and
16 ordinary meaning as they would be understood at the time of the
17 patent, so in 2005, and as understood by a person who is
18 reading the patent where that person has what's called ordinary
19 skill in the art.

20 We've talked -- we've heard about prior art, state of the
21 art. And so ordinary skill in the art would be somebody who
22 could read and understand the patents and what they were
23 describing. So someone with some technical knowledge and
24 ability to look at the specification and the figures and
25 understand what they were describing.

1 Q. Who would qualify as that person of skill in the art for
2 purposes of this case?

3 A. It's a hypothetical person, and this next demonstrative
4 shows what the -- what that person would have.

5 Now, I'm not going to read everything on the slide, but
6 generally it would be a person with a bachelor's degree in
7 computer science and then some additional experience, two to
8 four years working in the field where they gained some
9 additional experience.

10 And what the person of ordinary skill in the art
11 definition also says is that there's a relationship between the
12 experience you have and the education that you have. Sometimes
13 you can have less education but more experience or sometimes
14 you can have more education that can substitute for experience.

15 Q. Is this the level of skill in the art that you applied
16 here?

17 A. Yes, it is.

18 Q. So we talked about that step 1 part of things in your
19 methodology. What material did you consider for step 2?

20 A. For step 2 -- this shows the kind of the first step in the
21 upper left and then everything else is step 2.

22 So there's -- it really took a lot of time to understand
23 the accused products using a good deal of information. So
24 these are things like the video and the help pages, how to set
25 up speaker groups, customer-facing documents.

1 There are also internal documents that Google uses to
2 train its engineers and document how its system works.

3 There's also the testimony of witnesses who were deposed.
4 We saw some of the deposition video being played.

5 Also the source code. So those are the computer
6 instructions that run on the accused devices. I actually had
7 an opportunity to look at those instructions to see how the
8 programming operated on those particular devices.

9 And then also there was a test system that was set up with
10 the accused products, different kinds of controllers, different
11 kinds of speakers; and I could emulate what we saw on the
12 video, for example, set up my own speaker groups to test how
13 the user could use that functionality.

14 **Q.** Before starting that analysis, were you leaning in any
15 particular direction as to infringement?

16 **A.** No. It's -- it's part of my job as an independent expert
17 not to have preconceived opinions about who might be
18 infringing. So I went in trying to be completely independent
19 and not have opinions already formed before I started my work
20 on these patents.

21 **Q.** I would like to discuss this infringement analysis in
22 further detail.

23 What was the first thing you were asked to do?

24 **A.** The first thing was to look at the '885 patent, claim 1,
25 and to look at what are called prior versions. These are

1 versions that were first available as of November 2020 and they
2 continued to exist through today.

3 Q. And what specific Google products did you evaluate?

4 A. Those were the smart speakers, and I listed them before
5 and they're shown here on PDX2.28.

6 Q. Can we take another look at claim 1, Dr. Almeroth?

7 A. Yes. I can put that back up.

8 Q. What type of claim is this?

9 A. This is what's called a device claim. And you see here at
10 the top it says "A first zone player." That's a device. So
11 that's what has to perform or be capable of performing the
12 functions that are described in the rest of the limitations.

13 Q. What is required in order to infringe this kind of claim?

14 A. This would require a device, and what would be required
15 would be the kinds of program instructions to -- to be on that
16 device to perform these functions.

17 Q. So given that, how many devices do you need to infringe
18 claim 1 of the '885 patent?

19 A. To actually infringe this claim you just need one device
20 with the programming so that the programming can do all of the
21 functions required of the claim.

22 Q. Did you apply that methodology we just talked through in
23 order to determine whether Google infringes this claim 1 of the
24 '885 patent?

25 A. Yes. This was the first assignment I looked at. So I

1 went through my analysis, I figured out what documents I wanted
2 to consider, formed my opinions, and wrote a report as to what
3 my conclusions were.

4 **Q.** What was your conclusion?

5 **A.** My conclusions after going through all of the evidence
6 that I looked at and considering each of the limitations, that
7 all of the limitations of claim 1 of the '885 patent were met
8 by those accused smart speakers from Google.

9 **Q.** Do we need to walk through that element-by-element
10 analysis that you performed today?

11 **A.** No. We don't have to walk through it on an
12 element-by-element basis, and that's because the Court, based
13 on the analysis that I performed, found that claim 1 of the
14 '885 patent was infringed.

15 **Q.** What are the implications of that ruling as it relates to
16 your infringement analysis?

17 **A.** There's a couple implications. One is that with respect
18 to the '885 patent, I think it validates the analysis that I
19 did and the opinions that I formed with respect to the '885
20 patent.

21 And it also has implications for the '966 patent. We've
22 heard this phrase, "it's two sides of the same coin." You have
23 the player on one hand interacting with the controller, and so
24 there's some relationship between the '885 patent, claim 1,
25 that was already found to infringe and then the asserted claims

1 of the '966 patent.

2 **Q.** After the Court found that the '885 patent, claim 1, was
3 infringed by Google, what did you do next?

4 **A.** Next what I looked at was the question of whether or not
5 the '966 patent claims 1, 2, 4, 6, and 8 were infringed by the
6 Google Home app running on a consumer device.

7 **Q.** And specifically can you remind us what -- what products
8 are accused of infringing this claim?

9 **A.** Yes. It's products for the same timeframe. So that's
10 going to be November 2019 to the present. It's a year before
11 November 2020 for the '885 patent because the '966 patent
12 actually issued a year before the '885 patent. So infringement
13 for the '966 patent for what are these prior versions would
14 have started as of November 2019.

15 **Q.** Let's take another look at claim 1 of the '966 patent if
16 we can, Dr. Almeroth.

17 What type of claim is this?

18 **A.** This is also a device claim. It's -- it has different
19 requirements, but they're related to the player claim in the
20 '885 but it's also a device claim.

21 **Q.** What is required in order to infringe this type of claim?

22 **A.** Infringement can occur when you have the software, the
23 app, that has the functionality of the rest of the limitations
24 installed on a computing device like a phone.

25 **Q.** So given that, Dr. Almeroth, how many devices would be

1 required to infringe claim 1 of the '966 patent?

2 **A.** Just one device as long as it had the program instructions
3 required of the claims.

4 **Q.** And I think you mentioned there are some other claims of
5 the '966 patent that are also asserted. What -- how many
6 devices would be required to infringe those claims?

7 **A.** All of those claims are related to claim 1. They depend
8 on claim 1, and I can explain that when we get to them, but
9 those are also all device claims as well. It would take one
10 device installed with the software in order to infringe.

11 **Q.** Does Google have to sell computing devices that are
12 pre-installed with its Google Home app in order to be liable
13 for infringement of this kind of claim?

14 **A.** No. It's not the case that Google would have to sell a
15 phone with the app pre-installed in order for there to be
16 infringement. There's other ways that Google could infringe.

17 **Q.** And can you explain that a little bit more?

18 **A.** Yes. There's -- what can happen is in order to use one of
19 the accused players, it requires using a Google Home app, and
20 so that would be an example of where it's required to have the
21 Google Home app installed on one of these devices.

22 So as part of this analysis looking at whether or not
23 Google would encourage the use of the Home app or require the
24 use of the Home app would be one of the considerations that you
25 could use to determine whether or not there was infringement.

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1 **Q.** Have you seen evidence that Google does encourage and
2 require users to install that Home app?

3 **A.** Yes, absolutely. I've already looked at some of -- shown
4 some of that evidence. That was from TX36. That was that page
5 that described using the functionality of the Google Home app
6 to be able to use and control the speaker groups on some of
7 these devices. And then there's a bunch of other evidence I've
8 looked at as well.

9 **Q.** So I wanted to take a look at one other example of that
10 evidence, Dr. Almeroth.

11 **MR. SHEA:** And, Your Honor, what we want to look at is
12 some testimony from one of the witnesses that was played in
13 court, open court, yesterday.

14 **THE COURT:** Please, go ahead.

15 **MR. SHEA:** And is it okay for me to show the --

16 **THE COURT:** Go ahead.

17 **MR. SHEA:** -- clips on the --

18 **THE COURT:** Play it again.

19 **MR. SHEA:** Okay. It's just going to be a written
20 transcript of it; is that okay, Your Honor?

21 **THE COURT:** That's okay too.

22 **MR. SHEA:** Okay. Great.

23 So, Mr. Jay, can we pull up the transcript of Mr. Shekel's
24 testimony that was played in court yesterday starting at
25 139.09?

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1 **THE WITNESS:** (Witness examines document.)

2 **BY MR. SHEA:**

3 **Q.** Are you able to see that, Dr. Almeroth?

4 **A.** Yes, I can see it.

5 **Q.** So what does this show us?

6 **A.** This is the deposition testimony from Mr. Shekel who was
7 the product manager for Google Home app, and he was asked the
8 question (as read):

9 "Did Google require users to download the Google Home
10 app onto user's smartphone devices in order to set up and
11 use Google speaker devices?"

12 And he -- the witness answers (as read):

13 "I don't know the current status. While I was on the
14 team, I'd say the Chromecast or Chromecast Audio as to
15 Google devices. If it was Google, if it's those two
16 devices, you know, to set it up, someone" -- and this is
17 kind of the key part -- "the person that wants to set it
18 up would need the Google Home app, you know."

19 So, yes, he provided testimony as the former product
20 manager for the Google Home app that you needed that Google
21 Home app installed on a device to basically use those devices.

22 **Q.** And, Dr. Almeroth, have you also seen any evidence that
23 Google internally tests all the versions of its Google Home app
24 before releasing them?

25 **A.** Yes. Testing -- there's evidence of testing and obviously

1 testing these functions before they're released into the
2 marketed is absolutely critical.

3 Q. Focusing on devices installed with the Google Home app,
4 did you apply your methodology to determine whether there was
5 infringement of claim 1 of the '966 patent?

6 A. Yes, I did, followed my methodology, looked at a whole
7 bunch of evidence, and determined that all of the limitations
8 in the yellow box were met.

9 Q. And what was your conclusion as to whether installation of
10 the Google Home app infringes claim 1 of the '966 patent?

11 A. My analysis was that all of the limitations in the yellow
12 box -- 1.0, 1.1, 1.2, 1.3, and the first part of 1.4 -- were
13 met by the Google Home app installed on the device.

14 Q. Now, are you prepared to walk through your entire analysis
15 that you did for this claim today?

16 A. I could. I could show you the testing that I did, the
17 documents, the spec sheets, the requirements for the devices
18 that the Google Home app has to run on. I could go through it
19 all if you'd like.

20 Q. How long would that take us?

21 A. Past Mother's Day.

22 Q. Is that something you think the folks in the courtroom
23 would like to do?

24 A. No.

25 Q. Okay. Well, is there anything we can do to streamline it?

1 **A.** Yes. So the way to streamline it is I can show some
2 examples of the evidence that I looked at to kind of convey the
3 concepts that I was looking for and some of the evidence that I
4 found. Sort of we call it a representative set of evidence to
5 show that these limitations were met.

6 **Q.** So I'd like to do that. I'd like to see if we can look at
7 some of that representative evidence.

8 Is there a place we can start, Dr. Almeroth?

9 **A.** Yes. The easy place to start is to look at one of these
10 devices. If you look at the yellow limitations, you have to
11 have a device with a processor. It has to have memory for
12 storing computer -- or instructions to perform these functions.
13 So that's the Google Home app. And then those instructions
14 when executing have to perform the functions of a controller.

15 So you look at what the Google Home app does, and that's
16 some of the kinds of things that I looked at to determine that
17 all of the yellow limitations were met with respect to '966
18 patent, claim 1.

19 **Q.** Now, can the Google Home app be used on any device that
20 doesn't include these hardware requirements?

21 **A.** No. I mean, if you don't have a processor, your
22 smartphone is not going to do anything. If you don't have the
23 kind of memory to store the app, then you can't store the app
24 and you can't run the app.

25 So there are requirements for using the Google Home app on

1 a device, and those are the things that are included in the
2 claim that are required by the claim.

3 **Q.** Now, you just talked about the phone, the physical phone.
4 Is that the only evidence you evaluated for these yellow
5 limitations?

6 **A.** No. As I mentioned, there's a lot of other stuff that I
7 looked at that I'm hoping you're not going to ask me about.

8 **Q.** Based on all the evidence you did consider, what was your
9 opinion as to whether these yellow limitations were present in
10 devices installed with the Google Home app?

11 **A.** They were all present, and so I can check all of the boxes
12 for the limitations in the yellow box.

13 **Q.** Dr. Almeroth, as a final question on these yellow
14 limitations, do you have an understanding of whether Google is
15 contesting whether any of these are present?

16 **A.** It's my understanding that Google is not contesting that
17 the yellow limitations are met for the '966 patent.

18 **Q.** So maybe we can now look at the blue set of claim
19 limitations in the '966. What do these relate to?

20 **A.** These relate to setting up the speaker groups, the accused
21 speaker groups, and then being able to send a request based on
22 the request to set up the group causing creation of the zone
23 scene or speaker group, causing an indication to be sent to the
24 player, and then also causing storage of the zone scene. You
25 have to do that twice for two different zone scenes.

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1 Q. And then is there also a final element in the blue?

2 A. Yes. And then there's a display requirement with respect
3 to displaying both the first and second zone scene.

4 Q. You mentioned --

5 THE COURT: Well, isn't there a requirement that they
6 overlap?

7 THE WITNESS: Yes. Yes. There's more when you get
8 into the details. So I can go through the details. I'm trying
9 not to just read the whole thing again.

10 THE COURT: Well, that overlap, I think you should
11 explain that to the jury.

12 THE WITNESS: Okay. Yes, Your Honor.

13 I think I talked a little bit about this before, but in
14 limitation 1.5, the zone scene that gets created includes at
15 least a first zone player and a second zone player.

16 And then in the second zone scene that gets created, it
17 includes at least the first zone player and a third zone
18 player.

19 So what that means is you have the first zone scene that
20 includes 1 and 2 and the second zone scene that includes 1 and
21 3.

22 And so this is sometimes called the overlapping
23 requirement, that the claim requires the ability to have zone
24 scenes with overlapping membership. And this was a requirement
25 both for the '966 patent claims that are asserted and also the

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1 '885 patent, claim 1, that was found to infringe subject to
2 validity.

3 **THE COURT:** Thank you.

4 Go ahead.

5 **BY MR. SHEA:**

6 **Q.** Now, Dr. Almeroth, I want to look at a little bit of the
7 evidence you reviewed in connection with these elements.

8 You mentioned earlier that you had done some testing. Is
9 there anything we can look at?

10 **A.** Yes. So with respect to the accused products, I did some
11 testing and there were a number of screenshots that were taken
12 to memorialize the testing that I did, and so there's an
13 exhibit with a bunch of these screenshots in them.

14 **Q.** Well, maybe I can have you go to TX441 in your binder.

15 **A.** (Witness examines document.) Okay. I'm there.

16 **Q.** Are these the screenshots related to the testing of the
17 Google Home app and the speakers?

18 **A.** Yes. There's about 90 pages of screenshots that show all
19 sorts of different functionality that I looked at and took
20 screenshots of.

21 **MR. SHEA:** Your Honor, at this time we ask to move in
22 TX441 into evidence.

23 **MR. PAK:** Your Honor, it's not clear on the record.
24 Is this a testing of the older design or the new design?

25 **MR. SHEA:** It's both, Mr. Pak.

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1 **MR. PAK:** Both. I see.

2 Okay. Is it clear in the exhibits which --

3 **MR. SHEA:** Yes. There's page breaks that talk about
4 all the different dates.

5 **MR. PAK:** So as long as that's clear in the exhibit, I
6 don't have any objection.

7 **THE COURT:** Well, I don't know if it's clear. How am
8 I supposed to know that?

9 **MR. SHEA:** Yes, Your Honor. I can direct.

10 **THE COURT:** Tell us which ones relate to the old and
11 which relate to the new. Where does that break occur?

12 **MR. SHEA:** Sure, Your Honor.

13 So -- yeah, so just as a -- to help guide us through the
14 document, you can see even on the first page there's these
15 insert pages that then describe the dates of these tests.

16 And let me find where that break appears for this.

17 (Pause in proceedings.)

18 **MR. SHEA:** So, Your Honor, on page 81 there's -- the
19 date of those screenshots is listed as 1/23/2023, and that
20 corresponds to the range after which that part of -- the
21 redesign was rereleased.

22 **THE COURT:** All right. So let me explain to the jury.

23 If you ever get to this document in this case, so you have
24 to distinguish between the version that I said was practiced --
25 of the Google product that practiced claim 1 of the '885

1 patent -- and, again, that's subject to the determination of
2 whether it's valid or not, that's a different problem, but I
3 have determined that it infringes the claim 1 of the '885.

4 So then Google went and did what's called a redesign, and
5 one of the issues that you will be dealing with is whether or
6 not that redesign infringes, and this document has the first
7 part that relates to the old and then starting at page 81 it
8 relates to the new.

9 And with that explanation, I'm going to allow Exhibit 441
10 in evidence.

11 (Trial Exhibit 441 received in evidence.)

12 **THE COURT:** Thank you.

13 Go ahead. You can show whatever you want to the jury.

14 **MR. SHEA:** Thank you, Your Honor.

15 **BY MR. SHEA:**

16 **Q.** Well, Dr. Almeroth, can we take a look at some of the
17 screenshots that you captured?

18 **A.** Yes. I've got some screenshots in the demonstratives that
19 come from TX441 and that's on the next slide.

20 (Pause in proceedings.)

21 **BY MR. SHEA:**

22 **Q.** What does this demonstrative show us?

23 **A.** This is showing group creation very similar to what we saw
24 in video, but these are images from the testing that I oversaw.

25 The left image shows a hand being able to select from

1 among the different speakers that are there, in this case
2 kitchen and master bedroom. And then the image on the right
3 shows after that selection.

4 Then that speaker group can be named, in this case
5 morning, and then you can -- in the lower right you can click
6 on the "save" button to save that speaker group.

7 **Q.** Can we take a look at the next demonstrative?

8 **A.** Yes. So this next demonstrative shows a second speaker
9 group that's being created and saved. It shows that in the
10 accused products you can also select kitchen and living room,
11 you can give it the name for evening, and you can also click on
12 "save."

13 And one of the characteristics of the testing across these
14 two demonstratives is, in the first one -- so I'm going to go
15 back to the previous slide -- it shows kitchen and master
16 bedroom. So kitchen is in zone scene 1 and then it's also in
17 zone scene 2 for evening. So that shows the concept within the
18 Google accused products of having overlapping groups.

19 **Q.** And can we look at the next demonstrative, Dr. Almeroth?

20 **A.** Yes. And so on this last one PDX2.38, this is getting to
21 the last requirement of the blue group where you have a display
22 showing the first and second speaker groups or zone scenes.
23 And so the evening and morning that were just created are
24 displayed on the screen and can be selected for invocation.

25 **Q.** During this testing that you performed, what mode were the

ALMEROOTH - DIRECT / SHEA

1 speakers in when you created these speaker groups?

2 **A.** The speakers that were created -- that were put into these
3 different speaker groups -- so kitchen, master bedroom, and
4 living room -- were all in standalone mode throughout this
5 process.

6 **Q.** So, Dr. Almeroth, we've looked at screenshots. Is there
7 something else we can talk about that speaks to the technical
8 details of this functionality?

9 **A.** Yes. This is more the user interface style, but there's
10 also some technical documents and source code that we can look
11 at.

12 **Q.** So I want to take a look at one example.

13 **MR. SHEA:** Your Honor, if I may have permission to go
14 over to the evidence table.

15 **THE COURT:** Please, go ahead.

16 (Pause in proceedings.)

17 **MR. SHEA:** And then permission to approach,
18 Your Honor.

19 **THE COURT:** Please.

20 (Pause in proceedings.)

21 **THE COURT:** Later on in the trial, you lawyers -- I
22 mean, you may want to know in the jury box why they ask to
23 approach the witness, and I will explain it. Sometime when we
24 have a few extra seconds I'll tell you the history of that, but
25 it's a long thing.

ALMEROOTH - DIRECT / SHEA

1 Okay. Go ahead, counsel.

2 **MR. SHEA:** Thank you, Your Honor.

3 **BY MR. SHEA:**

4 **Q.** Dr. Almeroth, I've handed you TX78. What is this,
5 Dr. Almeroth?

6 **A.** This is actually source code. So these are computer
7 instructions that are written by Google that go into the Google
8 Home app that create the speaker groups. So the computer
9 instructions written in a programming language called Java that
10 implement some of this functionality.

11 **Q.** And, Dr. Almeroth, have you reviewed this source code
12 before?

13 **A.** I have.

14 **MR. SHEA:** So at this time, Your Honor, we move -- we
15 would like to move TX78 into evidence.

16 **MR. PAK:** No objection, Your Honor. It is obviously
17 confidential to Google so I assume it's moving in under seal.

18 **THE COURT:** Well, the jury will have the right to see
19 it, of course, if they want to in the jury room. We will deal
20 later with whether or not the public gets access to it, and I'm
21 not going to rule one way or the other on this. The newspapers
22 may come swooping in and want to see your source code, and I
23 have to hear them out.

24 But I will ask the clerk not to let any member of the
25 public see Exhibit 78 pending that -- the jury, of course, can

ALMEROOTH - DIRECT / SHEA

1 see it -- and any -- I'm not going to restrict in any way the
2 use of the source code in the courtroom. Anyone who wants to
3 be in here to see that source code, they're welcome to stay.

4 **MR. PAK:** Thank you, Your Honor.

5 **THE CLERK:** I show it as admitted yesterday.

6 **THE COURT:** 78 is already admitted?

7 **THE CLERK:** Yes.

8 **MR. SHEA:** Thank you.

9 **THE COURT:** Well, then great. Thank you.

10 **MR. SHEA:** So, Your Honor, just in order to comply
11 with your procedures, would you like -- how do you want to
12 handle --

13 **THE COURT:** You can show whatever you want on the
14 screen.

15 **MR. SHEA:** Okay.

16 **THE COURT:** I don't care if the biggest competitor in
17 the world of Google is in the courtroom now taking notes. We
18 are in a trial in the U.S. District Court. The jury's got to
19 do its job. You've got to do your job. Show whatever you
20 want.

21 **MR. SHEA:** Okay.

22 **THE COURT:** I'm not restricting that. This is
23 important perhaps; and if you want to put it on the screen, you
24 have every right to do that.

25 **MR. SHEA:** Okay. I think right now I may only have

ALMEROOTH - DIRECT / SHEA

1 one clean copy that Dr. Almeroth has given the restrictions we
2 have. So I'll ask him some questions and then we can --

3 **THE COURT:** I didn't put any restrictions on you.

4 **MR. SHEA:** Oh, I'm sorry. There was --

5 **THE COURT:** I see what you mean.

6 **MR. SHEA:** Not Your Honor.

7 **THE COURT:** Pretrial restrictions.

8 **MR. SHEA:** Yes. Sorry, Your Honor.

9 **THE COURT:** Do whatever you have to. If you're not
10 ready, you're not ready, but you have my blessings.

11 **MR. SHEA:** Thank you, Your Honor.

12 **BY MR. SHEA:**

13 **Q.** Dr. Almeroth, what is TX78?

14 **A.** So TX78 is some of the source code from the Google
15 devices. It's marked as highly confidential because it's the
16 actual instructions that would run on the device.

17 I think out of respect for Google, it's only about a
18 hundred lines of source code. The source code that I looked at
19 would be thousands and thousands of lines of source code, but I
20 think this is illustrative of the kinds of things that I was
21 looking at that helped me inform my opinion, and I think it
22 would be useful for the jury to see.

23 **Q.** Okay. And before I take it back from you, Dr. Almeroth,
24 can you just tell us a little bit more about the details of
25 what you're seeing?

1 **A.** Yes. So there's -- it's in a programming language called
2 Java, and there are functions in here. A function is a
3 collection of source code that performs a function, and there's
4 one called "create group."

5 And before the source code of the function there's a
6 comment, and a comment is written by a person intended for
7 another person to read that explains what the instructions do.

8 And so there -- before this create group function, there
9 is a comment that says "creates a new multizone group" and it
10 includes some of the information that's required to create one
11 of these groups.

12 **Q.** So --

13 **A.** Go ahead.

14 **MR. SHEA:** Permission to approach, Your Honor.

15 **THE COURT:** Sure.

16 (Pause in proceedings.)

17 **MR. SHEA:** If we can switch over to the ELMO so we can
18 take a look at that.

19 (Pause in proceedings.)

20 **THE COURT:** It's not working? It is working?

21 (Pause in proceedings.)

22 **THE WITNESS:** Focus.

23 **THE COURT:** It takes a while for the ELMO to warm up
24 and sometimes it has to be rebooted.

25 (Pause in proceedings.)

ALMEROOTH - DIRECT / SHEA

1 **THE COURT:** Is it working? I saw a hand there.

2 (Discussion held off the record.)

3 **MR. SHEA:** There we go. Great. All right.

4 **THE COURT:** Now is it too bright? It seems a little
5 bright. Maybe we could turn down the exposure.

6 (Pause in proceedings.)

7 **THE COURT:** How bad is it in the jury box? Is it
8 blurred out? Blurred out? Okay.

9 (Pause in proceedings.)

10 **THE COURT:** Down at the bottom you see the little
11 thing that looks like bright?

12 **THE CLERK:** Yeah.

13 **THE COURT:** It's gone away now, but -- maybe that
14 thing would allow us to make it not so bright.

15 (Pause in proceedings.)

16 **THE COURT:** That's better. Whatever you did is
17 better.

18 **MR. SHEA:** Yeah. That was my colleague, Mr. Smith.
19 Sorry, everybody, for the technical difficulties.

20 **THE COURT:** I think that's the best we're going to do.
21 There's a shadow on there, but now you've got to work with what
22 we got.

23 **MR. SHEA:** Okay.

24 **BY MR. SHEA:**

25 **Q.** Dr. Almeroth, with this on the screen maybe could you tell

1 us a little bit more about this?

2 **A.** Yes. So this is the function name here, create group.

3 And then this was the comment that I was pointing to
4 earlier that describes that you're creating a new multizone
5 group.

6 And just to show this function or method calls the create
7 or update group, and so there's a second page of source code
8 that starts to get into some of the details of that.

9 **Q.** Maybe we can just take a look at that quickly.

10 **A.** (Witness examines document.) Yeah. Just really briefly,
11 I mean, the point here is, again, there's a comment "create a
12 new multizone group" or "add new devices to an existing group."

13 You see the "create or update group," and this is the some
14 of the functionality here. For example, here you create a
15 device connection. So that would be a connection to the device
16 to be able to exchange information with it.

17 And then, again, there's kind of pages and pages of this
18 source code to go through and analyze and look at.

19 **Q.** Thank you, Dr. Almeroth.

20 I'm going to take that done.

21 (Pause in proceedings.)

22 **BY MR. SHEA:**

23 **Q.** So if we can go back to your binder, Dr. Almeroth, and can
24 I have you turn to TX6453? What is that document?

25 **A.** This is an internal Google document that starts to

ALMEROOTH - DIRECT / SHEA

1 describe some of the detailed functionality for how the speaker
2 group setup is to work.

3 **Q.** And is this a document you've reviewed previously,
4 Dr. Almeroth?

5 **A.** Yes.

6 **MR. SHEA:** Your Honor, at this time we ask to move
7 TX6453 into evidence.

8 **MR. PAK:** No objection, Your Honor.

9 **THE COURT:** Received.

10 (Trial Exhibit 6453 received in evidence.)

11 **THE COURT:** You can show it to the jury.

12 **MR. SHEA:** Mr. Jay, can we pull that up?

13 Great. And -- yeah, perfect.

14 **BY MR. SHEA:**

15 **Q.** So, Dr. Almeroth, with this on the screen, what does this
16 show us?

17 **A.** This is the mechanism for how groups are set up. It uses
18 something called cast V2 commands. It allows the Google Cast
19 app to configure groups. In this case the Google Cast app
20 would be the Google Home app that's running on the phone. And
21 it says (as read):

22 "Whenever one of these commands arrive, the group is
23 updated and stored in the prefs file on the device."

24 So here what it's talking about is the group creation that
25 gets -- that happens as a result via the user interface,

1 selecting the speakers, grouping them together, and pressing
2 "save."

3 There is a message that's sent to the player, and it
4 stores the group configuration information in the prefs file on
5 the device.

6 So that gets more into the specific steps beyond just the
7 user interface of what happens when you create a group, and
8 then the messages that get sent between the controller and the
9 smart speakers.

10 **Q.** So we've looked at a few things, Dr. Almeroth. Is that
11 all you looked at?

12 **A.** No. Again, there were dozens of documents, thousands of
13 lines of source code, and extensive testing to show that all of
14 the limitations in the green group were met.

15 **Q.** I think I heard you say "green group." Did you mean "blue
16 group"?

17 **A.** I did.

18 **Q.** Okay.

19 **A.** Thank you.

20 **Q.** And based on that evidence, what was your opinion with
21 respect to whether the limitations in the blue box were met?

22 **A.** So going through all the evidence and analysis that I
23 considered, and I showed some examples here, all of the
24 limitations in the blue group I checked off as part of my
25 analysis.

1 Q. Now, for these limitations, did Google say it was
2 disputing any of them?

3 A. To my understanding, there's -- there's one aspect of the
4 blue group of limitations. It shows up in two limitations that
5 Google disputes.

6 Q. And where are those limitations?

7 A. That is causing storage of the first zone scene and
8 causing storage of the second zone scene.

9 Q. And have you considered what Google has said as to why
10 these causing storage limitations are not met?

11 A. Yes. I looked at the arguments that Google made in
12 Dr. Schonfeld, Google's expert, made.

13 Q. Does Google's position change your opinion about those
14 limitations?

15 A. No, it doesn't change my opinion. I believe they're
16 reading additional requirements into the claims with respect to
17 what's required of storage; and when you consider what the
18 claims actually say, I believe that those limitations are met.

19 Q. So what do the claims actually say?

20 A. The claims say "causing storage of the first zone scene."
21 That's -- that's the extent of the limitation in claim 1 of the
22 '966 patent.

23 Q. And based on the evidence you've seen regarding the system
24 operation, does what Google's products do meet that
25 requirement?

ALMEROOTH - DIRECT / SHEA

1 **A.** Yes, absolutely.

2 **Q.** So maybe we can take a look at a few things on that.

3 We were just looking at TX6453.

4 **MR. SHEA:** Mr. Jay, can we pull that back up?

5 (Pause in proceedings.)

6 **BY MR. SHEA:**

7 **Q.** Does this help, Dr. Almeroth?

8 **A.** Yes. It says right here in this document (as read):

9 "The group configuration is updated and stored in the
10 prefs file on the device."

11 That's pretty much it. The information about the group is
12 stored on the players, and so that would be sufficient to meet
13 the requirements of the claim.

14 **Q.** And have you also seen any testimony from Mr. MacKay that
15 talked about storing?

16 **A.** Yes. Mr. MacKay was specifically asked about this
17 functionality. He's a Google employee, and he testified that
18 they -- that there was also storage.

19 **Q.** So maybe we can take a look at that quickly, Dr. Almeroth.

20 **MR. SHEA:** Mr. Jay, can I have you pull up
21 Mr. MacKay's deposition testimony? This is going to be
22 Volume 1 starting at 117.17.

23 (Pause in proceedings.)

24 **BY MR. SHEA:**

25 **Q.** Dr. Almeroth, can you talk us through this?

1 **A.** Yes. He was asked the question (as read):

2 "And I think we have talked about this as well as
3 before, but just to clarify, you agree that a speaker
4 group is something that is saved by a user in advance of
5 being launched?"

6 And he says (as read):

7 "Well, again, the group might never be launched, like
8 you might never cast to the group. So it's -- I would
9 characterize it as a static group is something that the
10 user configures and it's saved persistently."

11 **Q.** What does that tell us, Dr. Almeroth?

12 **A.** It says it's saved persistently. The claim says that you
13 have to cause storage. One of the ways to do that is to save
14 it for a period of time, to save it persistently.

15 **Q.** Now, Dr. Almeroth, I don't want to look at in detail, but
16 have you also seen source code that shows storing?

17 **A.** Yes. There's other source code that goes through the
18 process of what the document describes as storing the
19 configuration in the prefs file, and so that is certainly
20 present in the source code.

21 **Q.** And have you seen storing in your own testing?

22 **A.** Yes. I mean, you can do it from the perspective of a user
23 where you click on save and that group is saved, and you can
24 come back later and that group still exists. And so you've
25 caused storage of that group as required by the '966 patent.

1 Q. So to summarize then, what is your opinion as to whether
2 this storing requirement of claim 1 of the '966 patent are met?

3 A. All the limitations are met.

4 Q. So then I'd like to turn now to the green set of
5 limitations. And can you remind us what these are about?

6 A. Yes. So while you're displaying the first and second zone
7 scene, there's a third request to invoke the first zone scene;
8 and then based on that third request, causing the first zone
9 player to transition from standalone mode to the requirements
10 of operating in group mode.

11 And I won't read all of what's in the claim, but it's
12 essentially going from standalone mode to group mode.

13 Q. And before we go further, Dr. Almeroth, is there anything
14 in this green set of limitations that's being disputed by
15 Google as far as you're aware?

16 A. Not that I'm aware of.

17 Q. Do you have any screenshots you can show us that relate to
18 these limitations?

19 A. Yes, I do. So that's on the next demonstrative.

20 And these are screenshots that come from that same TX441
21 that you asked me about earlier.

22 Q. So can you talk us through these?

23 A. Yes. What's shown on the left side is selecting morning,
24 and what happens with morning after it's been selected is it
25 shows that now that speaker group has been activated or

1 invoked; and so those kitchen and master bedroom are operating
2 in a mode where they can play out music synchronously if that's
3 what is desired.

4 **Q.** And then, Dr. Almeroth, what mode were the players in at
5 the start of this functionality?

6 **A.** They looked to be in standalone mode.

7 **Q.** And is this -- is your testing the only evidence you
8 reviewed in connection with the green limitations?

9 **A.** No. I went through all of the other evidence just like
10 I've shown for the other limitations, the documents that
11 describe the functionality and then also the source code
12 testing as well.

13 **Q.** Based on that evidence, what is your opinion with respect
14 to the limitations in the green box?

15 **A.** That all of those limitations are met.

16 **Q.** So to summarize then, what is your conclusion as to
17 whether installation of the Google Home app on a computing
18 device infringes claim 1 of the '966 patent?

19 **A.** That there is infringement because all of the limitations
20 are met.

21 **Q.** So now, Dr. Almeroth, we mentioned earlier that there are
22 a few other claims from the '966 patent that are also asserted.
23 I'd like to ask you about those as well.

24 As a starting point, can you explain a little bit more to
25 us about what those claims are about?

1 **A.** Yes. So the first one -- there's 2, 4, 6, and 8. The
2 first one is claim 2. This is what's called a dependent claim,
3 and what that means is the first part of the claim says "the
4 computing device of claim 1 further comprising or including."
5 What that means is all of the limitations for claim 1 have to
6 be checked off; and then if those are checked off, then you can
7 look at the additional limitations here for claim 2.

8 And what claim 2 essentially requires is that while that
9 first zone player is configured to coordinate with the second
10 zone player that that first zone scene is invoked, that there's
11 a fourth request to invoke the second zone scene.

12 So what this means is the first zone scene is invoked and
13 now you're going to go through based on this request, cease to
14 operate, the zone player stops operating in group 1 and now
15 starts operating in group 2.

16 And I say "operating," I mean kind of the rest of the
17 language here operating in group mode for that second zone
18 scene.

19 **Q.** And so, Dr. Almeroth, as far as you're aware, is Google
20 disputing any of these additional limitations?

21 **A.** No. They're still just disputing, I believe, the one
22 concept within claim 1.

23 **Q.** And based on the evidence that you've reviewed, what is
24 your opinion as to whether these additional limitations are
25 met?

1 **A.** They're met. The evidence I looked at would be, again,
2 testing and screenshots and source code and all of the evidence
3 that I considered.

4 **Q.** So maybe we can turn to the next one, Dr. Almeroth.

5 **A.** Yes.

6 **Q.** And so can you explain this? I believe the claim is
7 claim 4, but can you explain this one to us?

8 **A.** Yes. This is kind of a nested claim. So it's claim 4
9 that's asserted. It depends on claim 3, which we haven't
10 talked about, and then claim 3 depends on claim 1. So you need
11 all of the requirements of claim 1, all of the requirements of
12 claim 3, and all of the requirements of claim 4 to meet this
13 limitation.

14 So claim 3 says "wherein the storage limitation of the
15 first zone scene is stored in a location other than the
16 computing device." So the computing device is the phone that's
17 running the controller; and the idea is that for the first zone
18 scene, information about that zone scene is not stored at the
19 controller and the same thing for the second zone scene.

20 Claim 4 says where it is stored then, is it's stored at a
21 location other than the computing device that includes a zone
22 player of the first predefined group.

23 So, for example, that zone players 1 or 2, it can be
24 stored on one or more of those zone players. So instead of
25 storing the zone scene information on the controller or on the

1 player, this specifically requires it to be stored on one of
2 the players of the zone scene.

3 **Q.** How does the evidence we looked at show that these
4 additional limitations of claim 4 are met?

5 **A.** The evidence that I focused on for claim 1 showed that it
6 was actually stored on the player. So that one exhibit that we
7 looked at where it talked about storing on the prefs file,
8 that's stored on the prefs file of the zone player that's in
9 the group.

10 **Q.** As far as you're aware, is Google disputing this
11 limitation?

12 **A.** There's -- they're disputing the storage requirement of
13 claim 1; and so I believe under the same argument that they're
14 applying for claim 1, they're applying to claim 4 as well.

15 **Q.** Do you agree with that?

16 **A.** No, for the same reasons I've already given.

17 **Q.** So then maybe we can take a look at the last two claims of
18 the '966 patent.

19 Can you tell us what these claims are about?

20 **A.** Yes. So the claim 6 is the idea where that first zone
21 scene, the first predefined group, does not include the third
22 zone player and the second predefined group does not include
23 the second zone player.

24 Remember, claim 1 was group 1 was 1 and 2 and group 2 was
25 1 and 3. This is saying that the groups can't be exactly the

1 same.

2 **Q.** And is Google -- starting with claim 6 then, Dr. Almeroth,
3 is Google disputing these limitations?

4 **A.** No, it's not.

5 **Q.** Based on the evidence you've reviewed, are these
6 additional limitations met?

7 **A.** Yes. All the same evidence and testing again that I've
8 already discussed.

9 **Q.** And then, lastly, can you tell us about claim 8?

10 **A.** Claim 8 goes more to the mechanism by which the first and
11 second request to create the zone scenes come from, and it's
12 based on receiving a first set of one or more inputs via a user
13 interface on the computing device.

14 And then the same thing for the third request for
15 invocation. So these come through inputs via user interface.
16 So it narrows the claim with respect to where those inputs can
17 come from.

18 **Q.** And how does the evidence we looked at show these
19 additional limitations are met?

20 **A.** Just as an example, you see that in the testing. That's
21 the way that the Google speaker group technology works.

22 **Q.** And when you say that's how the Google speaker group
23 technology works, can you expound on that for me?

24 **A.** Yes. Based on the screenshots and the Google Home app,
25 when you go to create the groups, those are via one or more

1 inputs via the user interface of the computing device. So the
2 evidence that I showed already shows that the additional
3 limitations of claim 8 were met.

4 **Q.** So then to summarize, what is your conclusion as to
5 whether installation of the Google Home app on computing
6 devices infringes these other asserted claims of the '966
7 patent?

8 **A.** It does. In fact, for all of the asserted claims of the
9 '966 patent -- 1, 2, 4, 6, and 8 -- the prior versions, meaning
10 from November 2019 up until the present, are infringed.

11 **Q.** So I think we've gone through your infringement analysis
12 for the prior versions of Google's products, and I know we've
13 heard a fair amount throughout the course of this trial about
14 the new versions. I'd like to ask you about those now,
15 Dr. Almeroth.

16 **A.** Okay.

17 **Q.** So during opening statements, did you hear Google's
18 counsel say that Google recently redesigned their products?

19 **A.** Yes. As of December 2022, so just December last year,
20 Google had a new version that they are calling the redesign.

21 **Q.** And do you have an understanding of what that new version
22 refers to?

23 **A.** Yes, I do.

24 **Q.** What is that understanding?

25 **A.** That understanding is there's really two scenarios with

1 respect to the redesign. And the idea that Google is
2 describing is this idea of, in one instance when grouping the
3 speakers together, if one of the speakers is playing, stop
4 playing that speaker when it -- the group is created. And then
5 the other scenario is if none of the speakers that are going
6 into the group are playing, then nothing changes.

7 **Q.** So before we get to the details on that, Dr. Almeroth, I
8 want to just ask you a few other questions first.

9 Did you analyze this new version that was released?

10 **A.** Yes, I did.

11 **Q.** And what materials did you review as part of that
12 analysis?

13 **A.** What I considered are all of the materials I considered
14 before and then focused on the redesign. And so with respect
15 to that redesign, I had access to Google's speakers that had
16 the new version so I was able to use those in the test bed.

17 I also had access to the source code and could see the
18 changes that were made to that source code.

19 And then also Mr. MacKay was deposed on a second day with
20 respect to the operation of the redesign.

21 **Q.** So I'd like to ask you a little bit about each of those.
22 Maybe we can start with that source code. What did you observe
23 there?

24 **A.** Within the source code, there was the addition of a
25 function called StopCurrentApp, and that function essentially

ALMEROOTH - DIRECT / SHEA

1 stopped an app inside of the Google Player. So if it was
2 playing, it would stop the music that a person could hear.

3 **Q.** So -- and, Dr. Almeroth, have you heard testimony from
4 Mr. MacKay regarding that change?

5 **A.** Yes. He testified specifically about that particular
6 change.

7 **Q.** So maybe we can take a look at some of that.

8 **MR. SHEA:** Mr. Jay, can we start by pulling up
9 Mr. MacKay's Volume 2 deposition transcript? And I'd like to
10 start with 1322.

11 (Pause in proceedings.)

12 **BY MR. SHEA:**

13 **Q.** So can you talk us through this, Dr. Almeroth?

14 **A.** Yes. This is the -- this function I just talked about, he
15 was asked (as read):

16 "And with the function in front of you, are you able
17 to more specifically identify for me what change was
18 made?"

19 And Mr. MacKay, who is the witness, said (as read):

20 "Yes. I added the call to StopCurrentApp on line
21 2077."

22 **Q.** So is that the same StopCurrentApp function you were just
23 mentioning?

24 **A.** Yes.

25 **MR. SHEA:** And then, Mr. Jay, if we can turn to

1 page 29, line 3 through 11.

2 **BY MR. SHEA:**

3 **Q.** Can you talk us through this, Dr. Almeroth?

4 **A.** Yes. The next question was (as read):

5 "Could you explain for me when you -- when we say
6 that a StopCurrentApp function is called on the device,
7 what does that StopCurrentApp function do to the device
8 when called?

9 "So my understanding is that any app that's currently
10 running will be stopped, or an app is -- well, I don't
11 know how to explain an app. I guess it's like a piece of
12 code that can be running that's performing something for
13 the user."

14 **Q.** Can you help us understand that, Dr. Almeroth?

15 **A.** Yes. So the idea of the StopCurrentApp that Google is
16 proposing is that if there is an app running that's playing
17 music, then it will be stopped as part of group creation.

18 And so the person who's putting the speaker into the
19 group, if it's playing in standalone mode, will stop playing.
20 Now, it still stays in standalone mode, but it will stop
21 playing music. If it wasn't playing music and it was in
22 standalone mode, then nothing changes about how that operates.

23 **Q.** Now, what did you observe during your own testing?

24 **A.** In my own testing I observed exactly those two scenarios.

25 **Q.** So do you have some screenshots that would help us with

1 that?

2 **A.** Yes. So these are screenshots from the second half or
3 actually the last 10 percent of TX441.

4 **Q.** And you've prepared some demonstratives to show us those?

5 **A.** Yes.

6 **Q.** So what does this first demonstrative show?

7 **A.** This first demonstrative is showing a speaker group
8 creation, and so the speakers that are being created here are
9 going to be the den speaker and the attic speaker. So here's
10 the den speaker (indicating) and here's the attic speaker
11 (indicating).

12 But what I'm testing in this scenario is what happens when
13 this den speaker is playing audio. And you can see here that
14 the den speaker is playing audio in the middle top one.

15 Mr. Jay, maybe if you can try and blow up that middle top
16 image.

17 You see the den speaker has the up-and-down bars. That
18 means that the den speaker is playing audio in standalone mode
19 and then the attic speaker is not playing anything.

20 And then, Mr. Jay, if you can zoom back out.

21 Then the thing I've talked about at the bottom, you give
22 it a name and then you click "save." And then now what you see
23 on the right side is that speaker group has been saved, but the
24 difference is the den speaker that was playing is now no longer
25 speaking -- is no longer playing.

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1 Q. Okay. And how does that behavior differ from how the
2 speakers behaved in prior versions?

3 A. In prior versions, that den speaker would continue to play
4 music.

5 Q. So maybe -- do you have another demonstrative we can take
6 a look at, Dr. Almeroth?

7 A. Yes. So there's a next set of demonstratives that would
8 show the same process, but now the den speaker is not playing
9 when it goes through the grouping process.

10 So the den speaker and the attic speaker are again being
11 combined.

12 Again, Mr. Jay, if you could zoom in on that top portion.

13 You see just dots for the den speaker. So none of these
14 devices are playing.

15 And if you could zoom back out, Mr. Jay.

16 They get combined and then the den speaker and the attic
17 speaker are not playing.

18 So if there's no speaker that's playing that gets combined
19 into the group, the redesign behavior is exactly the same as
20 what was already found to infringe.

21 Q. So after your evaluation of the functionality of this new
22 version, what did you do next?

23 A. The next thing that I did when evaluating this
24 functionality is to go back through and look at this
25 functionality specifically in the context of the asserted

1 claims again. So '885 patent, claim 1.

2 Q. And what limitation -- sorry.

3 Can we take a look back at claim 1?

4 A. Yes.

5 Q. What limitation does Google say is not met by this new
6 version?

7 A. Google believes that the limitation "continuing to operate
8 in standalone mode" is not met.

9 Q. Can you remind us what that part of the claim requires?

10 A. Yes. What this requires is during the creation process,
11 the speakers have to remain in standalone mode throughout the
12 creation of the first zone scene and the second zone scene.

13 Q. And based on your evaluation, what is your opinion as to
14 whether these standalone mode limitations are still met by the
15 new version?

16 A. Yes. And this is very important. Google ties playing
17 music and hearing audio to being in standalone mode or not.
18 Google says if you're not hearing music, then you're in some
19 other mode and so you're not in standalone mode.

20 But the reality is the claim talks about two modes:
21 You're either in group mode where you're synchronized to play
22 in group mode or you're not, you're in standalone mode.

23 So the fact that you stop playing audio as part of group
24 creation does not take that speaker out of standalone mode. It
25 just stops the ability to hear audio of what's already playing.

1 And if that speaker is not already playing, Mr. Mackay has
2 testified that the function StopCurrentApp doesn't do anything.

3 So the redesign is very minimal in terms of having any
4 impact on the device. It has an impact on the user interface;
5 but with respect to what's happening in the source code, it's
6 still operating in standalone mode.

7 **Q.** So then to summarize, Dr. Almeroth, what is your opinion
8 as to whether claim 1 of the '885 patent is infringed by
9 Google's smart speakers installed with this new version?

10 **A.** Despite the attempt at the redesign, it's my opinion that
11 Google still infringes claim 1 of the '885 patent.

12 **Q.** Did you also perform an analysis of whether the claims of
13 the '966 patent are still infringed?

14 **A.** Yes.

15 **Q.** Based on your evaluation, what was your conclusion?

16 **A.** Based on my evaluation, it was that the limitations that
17 are being contested are still met.

18 **Q.** So let's take a little closer look at that. And I see you
19 have claim 1 of the '966 patent up for us.

20 What limitations does Google say are not met by the Google
21 Home app in this new version?

22 **A.** Yeah. So Google believes that there's a requirement based
23 on limitation 1.4 where it says "operating in standalone mode,"
24 that each of the steps of 1.6 through 1.9 have to happen while
25 the device continues to operate in standalone mode.

1 Q. Do you consider that to be a requirement of these claims?

2 A. No. If you go back to the '885 patent, there is a
3 limitation here that requires continuing to operate in
4 standalone mode, but that "continuing to operate in standalone
5 mode" language does not exist in the '966 patent.

6 Each of these steps have to happen when the devices are in
7 standalone mode, but you don't have to continue to operate in
8 standalone mode from the creation of the first zone scene
9 through to invocation of the first zone scene.

10 Q. So based on your evaluation, what is your opinion as to
11 whether these limitations are still met?

12 A. They are still met for two reasons. One, the same reason
13 I just discussed with the '885, that Google's redesign, while
14 it might stop the play out of music, does not take the device
15 out of standalone mode. It's either in group mode or it's in
16 standalone mode. And just because a person stops hearing music
17 doesn't mean that it's left standalone mode.

18 And then the second reason for the '966 patent is there
19 isn't the same kind of requirement to continuously be in
20 standalone mode.

21 Q. So then what is your opinion as to whether claim 1 of the
22 '966 patent is still infringed by devices installed with the
23 Google Home app with this new version?

24 A. It's still infringed even in the new version, in the
25 redesign.

1 Q. And, Dr. Almeroth, have you also considered whether the
2 other claims of the '966 patent are still infringed?

3 A. Yes. I went through a similar analysis. This change
4 doesn't really impact the additional requirements of claim 2,
5 claim 4, claim 6, and 8, and so I believe all of those claims
6 are still infringed even under the new version, the redesign.

7 Q. So, Dr. Almeroth, I'd like to switch gears now and move
8 away from your infringement analysis for the time being.

9 What was the next topic that you were asked to analyze?

10 A. I was also asked to look at some damages-related issues,
11 some technical issues that will be used as input by the damages
12 expert in reaching their opinion as to what a reasonable
13 royalty would be, and those include a discussion of
14 noninfringing alternatives, technical comparability, and also
15 the technical importance of the two patents to Google.

16 Q. What is your understanding as to why you were asked to
17 evaluate these questions?

18 A. Because they're inputs into the damages analysis that
19 Sonos' damages expert performed.

20 Q. So let's take these issues one by one starting with the
21 noninfringing alternatives.

22 Just to get us started, can you explain what you were
23 asked to evaluate?

24 A. Yes. So the idea of noninfringing alternatives means that
25 at the time that Google was first infringing or accused of

1 infringement or found to be infringing, for at least the '885
2 patent, whether or not that there was an alternative that they
3 could have implemented that would not be infringing and then
4 also would be commercially acceptable.

5 **Q.** And what is the test for determining whether something is
6 a noninfringing alternative?

7 **A.** And I want -- I want to talk about this a little bit more
8 clearly. There's really three things that are required. So
9 the first is you have to not infringe. You can't still
10 infringe and do something different and still infringe. So you
11 have to avoid infringement, one or more limitations that are
12 not practiced by the noninfringing alternative proposal.

13 The second is that the alternative has to be commercially
14 acceptable. It's you have to have the same level of
15 functionality for it to be a noninfringing alternative. You
16 can't simply just remove the accused feature because that's not
17 commercially acceptable. It has to be a commensurate or equal
18 level of functionality in order to meet the second part of the
19 test for an NIA.

20 And the third is it had to be available, it had to be
21 something that Google could implement as of the time of
22 infringement, first infringement, which is November 2019 or
23 November 2020.

24 **Q.** Do all three of these criteria need to be met?

25 **A.** Yes, sir.

PROCEEDINGS

1 Q. And if they're not --

2 THE COURT: I have a question about that.

3 You're saying it has to be as commercially acceptable as
4 the patented feature, but what if it's 99 percent as effective
5 and commercially acceptable? Are you saying just a tad less
6 would remove it from consideration?

7 THE WITNESS: For a noninfringing alternative, that's
8 close to my understanding. I don't know if it's like
9 99 percent.

10 THE COURT: Well, where did you get that view of the
11 law? You're not a lawyer. Where did you get that idea?

12 THE WITNESS: That's -- that was the understanding I
13 was given from Sonos' lawyers as the test to use for a
14 noninfringing alternative.

15 THE COURT: Well, in the end, I will tell the jury
16 what is the test. It may be correct, it may not be correct,
17 but this is the way the witness has pitched it.

18 All right. It's time for a break. We're going to take a
19 15-minute break.

20 Please remember all the admonitions.

21 THE CLERK: All rise for the jury.

22 (Proceedings were heard outside the presence of the jury:)

23 THE COURT: Be seated.

24 Have the lawyers given me the law on this point that I
25 just raised?

PROCEEDINGS

1 **MR. PAK:** I don't think we've briefed that issue,
2 Your Honor, to you.

3 **THE COURT:** All right. Well, I'd like to know. To
4 me, it doesn't sound right that it has to be just as good as
5 the patented thing. What if it's 99 percent as good? And that
6 would -- that would affect what you -- in my mind, it would
7 affect what somebody would be willing to pay if there was a
8 noninfringing alternative.

9 If it was 99 percent as good as the patented thing and you
10 could do that for free, I'd do it for free. I can't imagine
11 that the Federal Circuit has said it's got to be just as good.

12 Now, commercially acceptable, yes. I remember that. But
13 that does -- I think the witness is out on a big limb there.
14 So I hope the law supports him.

15 **MR. SHEA:** So, Your Honor, yeah, I think -- so I guess
16 a couple things. One, I do believe we've submitted to
17 Your Honor proposed jury instructions, and I think that the
18 language -- I believe -- I don't have them in front of me, I
19 think there's certainly language in there about the test.

20 **THE COURT:** Well, but what does the Federal Circuit
21 say?

22 **MR. SHEA:** Yeah.

23 **THE COURT:** What you say is not necessarily what the
24 law is.

25 **MR. SHEA:** My understanding -- we'll obviously go back

1 and check and make sure we're accurate on this. What I had
2 written in my notes on this, Your Honor, is that in order to be
3 commercially acceptable, what the case law says is that the
4 alternative has to have the same advantages and level of
5 performance as the patented technology so that consumers would
6 be satisfied by the alternative.

7 **THE COURT:** Well, let's get -- I'd like to -- I'd like
8 both sides to give me their view.

9 Okay. I have some things. I asked you yesterday for this
10 timeline, and I didn't -- did you give it to me?

11 **MR. PAK:** Not yet, Your Honor. We're working on that
12 with the other side. There's some disagreements.

13 **THE COURT:** Well, it doesn't have to be agreed upon.

14 **MR. PAK:** Okay.

15 **THE COURT:** But I would like the timeline.

16 **MR. PAK:** Thank you, Your Honor.

17 **THE COURT:** Secondly, I need to -- now I've learned
18 this morning that the 2005 specification is a little bit
19 different. I'd like to see the 2005 specification. Do you
20 have that?

21 **MR. PAK:** Yes, Your Honor.

22 **THE COURT:** Can I have that right now?

23 **MR. PAK:** Yes.

24 (Pause in proceedings.)

25 **MR. PAK:** So, Your Honor, I have included all the

1 other patents in the continuation chain. The first one is the
2 provisional one that was filed.

3 **THE COURT:** All right. Let counsel see it.

4 **MR. SHEA:** I wanted to confirm.

5 **THE COURT:** Yeah, please.

6 **MR. SHEA:** The provisional has appendices to it, and
7 sometimes -- Mr. Pak has it in his binder.

8 **THE COURT:** Great.

9 Okay. The prosecution history, did I ask for that?
10 Right?

11 **MR. PAK:** Yes. I have that as well, Your Honor.

12 **THE COURT:** You have it here?

13 **MR. PAK:** Yes.

14 **THE COURT:** All right. Can you show Counsel and let
15 me see it?

16 (Pause in proceedings.)

17 **THE COURT:** How much longer do you have on direct?

18 **MR. SHEA:** I think I've got about 15, 20 minutes,
19 Your Honor.

20 **THE COURT:** Okay.

21 (Pause in proceedings.)

22 **THE COURT:** You can step down and go to the bathroom.
23 There's no need to keep you here.

24 **THE WITNESS:** Thank you, Your Honor.

25 **MR. PAK:** I just explained to Counsel, Your Honor,

PROCEEDINGS

1 that the actual file history, because there were so many prior
2 arts submitted, boxes and boxes, I've excerpted out the
3 relevant portions separated by blue sheets; and one is TX004,
4 that is the relevant excerpt for the '966 patent and TX006 is
5 the relevant portion of the 885 patent. And counsel is
6 checking that for accuracy before we submit to Your Honor.

7 **THE COURT:** All right. You can give it to me when I
8 come back then.

9 **MR. PAK:** Thank you, Your Honor.

10 Your Honor, on the timeline, whether we agree or not, we
11 can submit by 8:00 p.m. today. Would that be acceptable?

12 **THE COURT:** All right. That'll work.

13 **MR. PAK:** And on the legal issue about the -- about
14 the sufficiency of the noninfringing alternative, we can also
15 submit that by 8:00 p.m. today.

16 **THE COURT:** Yes, please.

17 **MR. PAK:** Thank you.

18 **THE COURT:** All right.

19 **MR. SHEA:** Mr. Pak, one thing. Did the binder you
20 hand -- it looked like it had notes. Do those actually --

21 **THE COURT:** I haven't looked at it at all.

22 **MR. PAK:** There are no notes.

23 **MR. SHEA:** Okay. I just wanted to make sure.

24 **THE COURT:** All right. Okay. There shouldn't be --

25 **MR. PAK:** Here's a clean version just without any kind

1 of marking.

2 **THE COURT:** Well, do you want this back or not? There
3 are -- there are tabs, yellow tabs, here --

4 **MR. PAK:** I have a clean version, Your Honor, so we
5 can just give you this one.

6 **THE COURT:** -- and they're highlighting.

7 **MR. PAK:** Yeah.

8 **THE COURT:** Is that what you mean?

9 **MR. SHEA:** Yes.

10 **THE COURT:** All right.

11 **MR. PAK:** We'll take that one back, Your Honor.

12 **THE COURT:** All right. I'll step off the bench.

13 **MR. PAK:** I'm going to review my cross-examination.

14 **THE CLERK:** Court's in recess.

15 (Recess taken at 9:27 a.m.)

16 (Proceedings resumed at 9:43 a.m.)

17 (Proceedings were heard out of the presence of the jury:)

18 **MR. SHEA:** Your Honor, can I make one quick statement
19 to you based on what we were talking about before the break?

20 **THE COURT:** Yes, go ahead.

21 **MR. SHEA:** I caveated it before that I wanted to check
22 on what you had asked about the commercial acceptability
23 because I didn't want to say something wrong, and then I did
24 say something wrong anyway. I'm sorry about that.

25 So what I think we're looking for with commercial

PROCEEDINGS

1 acceptability, Your Honor, is just that it's acceptable to
2 consumers or that it satisfies consumer demand. That's really
3 the test we're looking at.

4 **THE COURT:** All right. Thank you for that
5 clarification.

6 I have a question on the specifications. Did the
7 original -- the '966 specification does use the term "zone
8 scenes," I think; right? Right?

9 **MR. SHEA:** Yes, that's right, Your Honor.

10 **THE COURT:** Was that also in the original
11 specification, the term "scenes"?

12 **MR. SHEA:** Yes. Both the term "scenes" and "zone
13 scenes" is found throughout those spec -- the provisional.

14 **THE COURT:** In the original?

15 **MR. SHEA:** Yeah.

16 **THE COURT:** Okay. That's good to know.

17 **MR. SHEA:** In fact --

18 **MR. PAK:** Your Honor -- I'm sorry.

19 **MR. SHEA:** -- it may be just helpful to clarify,
20 Your Honor, because one document we've seen a few times in this
21 case with Mr. Lambourne was his kind of specification -- his
22 technical specification for the zone scenes. I don't know if
23 Your Honor remembers that.

24 In any event, what I just want to point out is that that
25 document, Mr. Lambourne's document, got attached right to the

PROCEEDINGS

1 back of the provisional application. So everything from
2 Mr. Lambourne's technical specification is actually an appendix
3 to the provisional.

4 And that document uses "zone scenes" throughout -- the
5 term "zone scenes" throughout, and then the actual
6 specification -- the cover specification of the provisional and
7 the figures also do use the term "zone scene" as well or
8 "scene," one or both.

9 **THE COURT:** I'm sorry. In this notebook -- where can
10 I find the original patent?

11 **MR. PAK:** Your Honor, there was no original patent.

12 **THE COURT:** The original specification in 2005.

13 **MR. PAK:** That's the first -- that's what's called the
14 provisional application. In the first tab on the third page
15 you'll see a provisional application for controlling and
16 manipulating groupings in a multizone music or media system.
17 That is the provisional application.

18 As a provisional, it did not have any claims. This did
19 not issue as a patent. The first issued patent is under tab 2,
20 which is United States Patent Number 8483853, and then the rest
21 of the tabs will have the subsequent members of the family.

22 **THE COURT:** All right.

23 **MR. PAK:** And, Your Honor, we did agree on the
24 prosecution history, the relevant excerpts, and I have that now
25 to hand up to Your Honor if you would like.

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1 **THE COURT:** Yeah. Just hand it to Angie --

2 **MR. PAK:** Okay.

3 **THE COURT:** -- and then I'll get it in due course.

4 **MR. PAK:** Thank you.

5 **THE COURT:** All right. Let's bring in the jury and
6 continue on.

7 **THE CLERK:** All rise for the jury.

8 (Proceedings were heard in the presence of the jury:)

9 **THE COURT:** Welcome back. Be seated.

10 Let's continue. You have about 15 more minutes on direct.

11 **MR. SHEA:** I think so, Your Honor.

12 **THE COURT:** All right. Then we'll go to the cross.
13 Please continue.

14 **MR. SHEA:** Thank you, Your Honor.

15 **BY MR. SHEA:**

16 **Q.** Dr. Almeroth, welcome back again.

17 **A.** Thank you.

18 **Q.** I think before the break we'd been talking a little bit
19 about the test for noninfringing alternatives.

20 What I want to ask you now is: How do experts like you go
21 about answering the question of whether there were
22 noninfringing alternatives?

23 **A.** Yes, so there's a methodology for this. I'll go through
24 this pretty quickly.

25 You consider the patents again, kind of the same step 1,

1 and then here there's a set of documents from Google proposing
2 alternatives and then also some testimony about whether or not
3 those alternatives would be sufficient or not.

4 **Q.** And based on your evaluation, were you able to come up
5 with any acceptable noninfringing alternatives to the patented
6 inventions here?

7 **A.** No. One of the steps is I tried on my own before I had
8 heard from Google about whether or not there were noninfringing
9 alternatives, and I couldn't think of any that would meet the
10 requirements of the noninfringing alternatives test.

11 **Q.** Now, during opening statements, did you hear Google's
12 Counsel talk about noninfringing alternatives?

13 **A.** Yes, I did.

14 **Q.** So I want to ask you about that.

15 **MR. SHEA:** And so, Mr. Jay, can we pull up slide 9
16 from Google's opening statement presentation?

17 (Pause in proceedings.)

18 **BY MR. SHEA:**

19 **Q.** So, Dr. Almeroth, what is this alternative about?

20 **A.** This alternative is essentially the redesign that was
21 implemented, this idea that Google believes that stopping play
22 out of music on a speaker in standalone mode while it's being
23 added to a group somehow takes it out of standalone mode and
24 that makes it both a noninfringing redesign and also a
25 noninfringing alternative.

1 Q. And does this relate to some of those screenshots we
2 looked at before the break?

3 A. Yes, when I walked through the scenarios.

4 Q. Do you agree with Google's lawyer that this is a
5 noninfringing alternative?

6 A. I don't for at least a couple of reasons.

7 Q. Can you tell us what those reasons are?

8 A. Yes. Well, I've walked through the redesign and why I
9 think it still infringes under the two scenarios and then for
10 the different claim requirement. And in all instances
11 I believe it still infringes, and so that would violate the
12 first test for noninfringing alternative.

13 Second, I also don't believe that it would be commercially
14 acceptable. Despite the redesign and despite the fact that
15 Google has deployed it, I still believe it would not be
16 commercially acceptable as an NIA.

17 Q. So you heard Google's lawyer say that because it's been
18 now commercially deployed as of December, that that makes it
19 commercially acceptable. What is your response to that?

20 A. Yes. Just because you deploy a redesign doesn't mean that
21 it necessarily meets the requirement that it's commercially
22 acceptable from the perspective of what the claim required.
23 And the reason for that is someone might deploy a design --

24 THE COURT: Wait, wait. I'm going to -- that may or
25 may not be the proper test from the -- he said "commercially

1 acceptable from the perspective of what the claims require."

2 I'm not sure that's the right test.

3 So take -- put a big asterisk by your notes on this
4 testimony please, and I will tell you later what the proper
5 test is. And it may be what the counsel and witness is saying,
6 but it may not be.

7 Proceed with some caution here, Counsel.

8 **MR. SHEA:** Yes, Your Honor.

9 **BY MR. SHEA:**

10 **Q.** Maybe we can just clarify that.

11 I mean, Dr. Almeroth, again, what do you understand for
12 commercial acceptability to be the test?

13 **A.** That it has to be commercially acceptable. It has to be
14 acceptable to consumers, as an example.

15 **Q.** Okay. And have you heard views from any actual Google
16 employees as to the commercial acceptability of the new version
17 that Google released?

18 **A.** Yes. I believe there's been testimony from Google on this
19 exact point.

20 **MR. SHEA:** So, Mr. Jay, can we pull up the deposition
21 testimony from Mr. Shekel that we heard yesterday at page 99,
22 line 9?

23 (Pause in proceedings.)

24 **BY MR. SHEA:**

25 **Q.** Can you remind us who Mr. Shekel is, Dr. Almeroth?

1 **A.** Mr. Shekel is the former product manager for the Google
2 Home app. He's the person at Google who would know about the
3 importance of this feature.

4 **Q.** And can you talk us through what's on the screen?

5 **A.** Yes. So he was asked the question (as read):

6 "Would you say it's an important feature for the
7 music playback to not be disturbed while you set up new
8 groups, this exact concept I think in the redesign and
9 being proposed for the NIA?"

10 And he said (as read):

11 "In my opinion, if by setting a group you'll now be
12 stopping the music a person played, that would not be a
13 great experience for the user."

14 **Q.** How does this testimony inform your opinion?

15 **A.** It informs my opinion that Google believes that removing
16 the feature of not disturbing playback, so allowing the audio
17 to be stopped, would not be a great user experience. It's not
18 even really my understanding or application of the test of
19 commercial acceptability. I believe it comes straight from
20 Google that it would not be a great user experience.

21 **Q.** Now, Dr. Almeroth, I believe we may have heard Google
22 mention one other alternative in its opening. Can you tell us
23 what that alternative is about?

24 **A.** Yes. There's a second alternative of eliminating the
25 ability to have overlapping groups when groups are set up.

1 Q. Has Google released that alternative?

2 A. No, it has not.

3 Q. Do you agree with Google's lawyer that that is a
4 noninfringing alternative?

5 A. No, I don't.

6 Q. Why not?

7 A. Because I believe it violates the commercial acceptability
8 requirement of an NIA. And, again, I think that Mr. Shekel
9 made quite clear for this second NIA in his testimony that it
10 also would not be acceptable, that Google actually agrees that
11 that would not be a commercially acceptable NIA.

12 Q. So maybe we can take a look at that as well.

13 MR. SHEA: So, Mr. Jay, can we pull up Mr. Shekel's
14 testimony at page 109, line 11?

15 (Pause in proceedings.)

16 BY MR. SHEA:

17 Q. And so can you talk us through this, Dr. Almeroth?

18 A. Yes. So he was asked (as read):

19 "Would it be a poor user experience to kick speakers
20 out of a prior group if they're added to a new group? And
21 so that's the way that you would implement no overlapping
22 groups, that if you were trying to create a group with a
23 new speaker in it, they would have to be removed from the
24 other group to avoid this overlapping functionality."

25 And the witness Mr. Shekel said (as read):

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1 "I feel -- or my opinion at the time was that that
2 would not be a good experience for how Google Cast works
3 for the reasons I highlighted before when you asked me
4 about the benefits and why we chose this one. So, yes,
5 that would not be a good experience or it will be poor,
6 maybe more specifically."

7 So that's Mr. Shekel describing that it would be at best
8 not a good experience and more likely a poor experience for
9 users as an alternative.

10 **Q.** How does this testimony inform your opinion?

11 **A.** It helps support my conclusion that the no overlapping
12 groups would not be commercially acceptable.

13 **Q.** So then, Dr. Almeroth, to summarize, what is your opinion
14 as to whether there are any acceptable noninfringing
15 alternatives to the '885 and '966 patents?

16 **A.** That there would not be any noninfringing alternatives for
17 the '885 and/or the '966 patent claims.

18 **Q.** So I think the second thing you mentioned on these
19 damages-related issues is technical comparability. Maybe we
20 can look at that next.

21 As a starting point, can you explain to us what you were
22 asked to evaluate?

23 **A.** Yes. There's this app that you can download and run on
24 your phone. We've referred to it -- I think it's been
25 mentioned a couple of times -- IFTTT, which stands for "if

1 this, then that." And I performed an analysis to determine
2 whether or not the if this, then that application was
3 technically comparable to the asserted claims.

4 **Q.** And can you explain to us what it means for something to
5 be technically comparable to a patented invention?

6 **A.** Yeah. So there's a framework here, and the test is a
7 little bit of a loose test. It says it must be sufficiently
8 related to the case at hand and there's a second part that goes
9 with it that says that that does not require identity of
10 circumstances, which means you don't have to have an app or a
11 system that meets every limitation of the claims. It has to be
12 sufficiently technically comparable so that it can be used as a
13 comparison.

14 And so the third part is this necessarily involves an
15 element of approximation and uncertainty, that you're
16 mapping -- you're looking at the claims and what the claims
17 require and the functionality of what the app can do and trying
18 to see if there's some level of technical comparability here.

19 **Q.** How did you go about answering the question of whether the
20 IFTTT applets you mentioned are technically comparable to the
21 patents?

22 **A.** There's a methodology here as well. Again, it starts with
23 the patent claims and then the second piece is what this IFTTT
24 application is, how it works, what the website says. And then
25 I've also done my own testing and use of this app.

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1 **Q.** Is there a document we can look at that describes what
2 IFTTT is?

3 **A.** Yes. On the IFTTT website there's a document that
4 describes what it is and how to use it.

5 **Q.** Okay. Maybe we can look at that.

6 So can I have you go to TX115 in your binder,
7 Dr. Almeroth?

8 **A.** (Witness examines document.)

9 **Q.** Can you tell us what that is?

10 **A.** That is a part -- the web page that was printed for about
11 IFTTT explaining what it is.

12 **Q.** Is that something you've reviewed before?

13 **A.** It is.

14 **MR. SHEA:** So, Your Honor, at this time we'd like to
15 move into evidence TX115.

16 **MR. PAK:** No objection, Your Honor.

17 **THE COURT:** Received in evidence.

18 (Trial Exhibit 115 received in evidence.)

19 **MR. SHEA:** Mr. Jay, can we pull up page 1?

20 **BY MR. SHEA:**

21 **Q.** With that in front of us, Dr. Almeroth, can you explain
22 what an IFTTT applet is?

23 **A.** Yes.

24 And, Mr. Jay, if you could blow up that first paragraph
25 under what it is.

1 It's kind of this long acronym, but it's actually pretty
2 straightforward. It stands for if this, then that and it's a
3 way of integrating apps and devices and services. And the idea
4 is that if this, then that. And so the "this" is what's called
5 a trigger, something like pressing a button on an app in a
6 phone. And then the "that" that happens is whatever you want
7 to map to that particular trigger. So if you press a button on
8 your phone, then something will happen. And it's -- it's
9 pretty straightforward to set up.

10 **Q.** What else maybe do we want to look at in this document?

11 **A.** Mr. Jay, if you go to the next page, at the bottom it says
12 "Automating is easy." If you could blow that up.

13 (as read):

14 "Each service is a combination of triggers and
15 actions that can be combined to create the automations
16 that help you achieve your goals."

17 Again, the "this" is the trigger. So, for example, you
18 can press a button and sound will start playing out of your
19 Sonos speakers. That's the -- that's the action that's being
20 triggered there.

21 And then, Mr. Jay, if you go to the third page, it shows
22 an example of how to set this up.

23 I've called it kind of programming it -- not programming
24 like computer code, but programming by setting up these three
25 things.

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1 You choose a trigger, you choose an action, you name it,
2 and then you hit save. And so it can be as simple as press a
3 button and music will come out of speaker, press a button and
4 the volume goes up. So that's essentially the kind of
5 functionality that the if this, then that app has.

6 **Q.** Did you also test the IFTTT app?

7 **A.** Yes, I did.

8 **Q.** Can I have you go to TX442 in your binder?

9 **A.** (Witness examines document.) Okay. I'm there.

10 **Q.** Can you tell us what this is?

11 **A.** These are screenshots from my testing of IFTTT.

12 **Q.** And how were those screenshots captured, Dr. Almeroth?

13 **A.** Through the same kind of test bed where I set up IFTTT and
14 took screenshots to document the process of what I was doing
15 and what the results were.

16 **MR. SHEA:** So at this time we would like to move into
17 evidence TX442.

18 **MR. PAK:** No objection, Your Honor.

19 **THE COURT:** Thank you. Received.

20 (Trial Exhibit 442 received in evidence.)

21 **BY MR. SHEA:**

22 **Q.** Dr. Almeroth, have you prepared any demonstratives that
23 can help us look at these screenshots?

24 **A.** Yes. I've pulled a couple of the screenshots out and put
25 them into demonstratives.

1 Q. So, Dr. Almeroth, is there built-in functionality already
2 available in the IFTTT app for controlling Sonos speakers?

3 A. Yes. So there's already the ability in IFTTT to control
4 some of the things that you see on the screen. This is what's
5 included in the app when you download it. So you can play, you
6 can pause, resume, volume up, volume down, and there's already
7 that functionality for Sonos in IFTTT.

8 Q. Can you show us an example of how to use that built-in
9 functionality to create an applet for playing to multiple Sonos
10 speakers?

11 A. Yes. So the idea here is this shows the setting up of an
12 applet, and it shows if a button is pressed -- so that's the
13 red part at the top -- then you resume playing on one speaker
14 and you resume playing on a second speaker.

15 And then what you can do is you can name the applet, in
16 this case you can give it an example like what we've been
17 calling for a theme, like garden, and then you can hit
18 "finish," which will save that applet for use.

19 Q. Was that easy to do, Dr. Almeroth?

20 A. It was. It's really the simple steps of clicking the
21 buttons and associating the actions that existed. It was
22 pretty straightforward. It took about 15 seconds.

23 Q. Are you able to build this kind of applet in all different
24 versions of the IFTTT app?

25 A. No, and this is an important distinction. There's a free

1 version of the app that does if this, then one that, where you
2 do one action. There's a paid version of the app that allows
3 you to do multiple ver- -- multiple thats.

4 So you see here on the left, this is actually
5 functionality you can only do in the paid version because
6 there's two black boxes. You have to do one action of resume
7 on one speaker and you have to do the resume on the second
8 speaker.

9 So in order to get the kind of technical comparability
10 functionality of being able to play to multiple speakers, you
11 have to have the paid version of the app that allows you to do
12 multiple steps for the that.

13 **Q.** Can you show an example of creating additional applets?

14 **A.** Yes. So we showed an example of where you could create
15 one for garden. You could also do morning and evening and
16 afternoon, other kinds of examples that we've used throughout
17 the trial. And this would show the idea of having multiple
18 groups similar to zone scenes, not exactly the same, but being
19 able to display multiple of those on the screen.

20 **Q.** And can these additional applets, or some them at least,
21 have overlap in terms of the Sonos speakers?

22 **A.** Yes. When you set up the resume function for a particular
23 speaker, one group can have resume for, say, one player and
24 then another group can resume on that same player. So they
25 can -- you can set up overlapping groups.

1 Q. What else can you do with this functionality?

2 A. So the other thing that you can do is there are music
3 services like Spotify, and so there's also prebuilt actions
4 here. So, again, if a button press within the app, when you
5 press that, then that will start playback -- and it's green
6 because it's Spotify -- and then there's an "and resume," which
7 would be to a Sonos speaker.

8 So in that case you can build an applet that will on a
9 button press be able to play music from Spotify as a
10 third-party service and then be able to play that on multiple
11 speakers because of the multiple that's that can be programmed
12 in.

13 Q. And for the Spotify part of this screenshot, where would
14 that playback be taking place?

15 A. That playback would be taking place on any of the speakers
16 that it was programmed to play back on.

17 In addition to playback on Sonos speakers, one of the that
18 functions would be to play back on a Google speaker. And so
19 this -- if this, then that app has the ability to be able to
20 play audio on multiple smart speakers based on a button press
21 for a group that's already been created.

22 Q. So you're saying in that case it would be a group of two
23 different brands of speakers?

24 A. It would be, yes. It has that capability.

25 Q. So do these kinds of IFTTT applets we've been looking at

1 do everything that the claims require?

2 **A.** No, not everything. They don't play exactly in
3 synchronization. They play the same audio back, for example;
4 but then, again, doing a limitation-by-limitation analysis and
5 saying that IFTTT has to meet every limitation is not a
6 requirement for technical comparability. So it has to be
7 sufficiently related to the case at hand.

8 And I think Sonos' damages expert will talk about that
9 relevance as it relates economically; but for my purposes, I'm
10 just focused on the technical comparability and looking at the
11 overlapping functionality between the claims and what IFTTT can
12 do.

13 **Q.** And are the IFTTT applets we've looked at the only kinds
14 of applets you can build?

15 **A.** No. You can use the IFTTT functionality to program -- to
16 build applets, to do just about anything. Whatever the trigger
17 is and whatever the action is, if you can just set those up on
18 the menus, then you can do that kind of functionality.

19 **Q.** So then to summarize, what is your opinion as to whether
20 the IFTTT app is technically comparable to the patented
21 inventions?

22 **A.** It is for the reasons I've given.

23 **Q.** So I think we have one last thing to talk about,
24 Dr. Almeroth, for today at least and that's technical
25 importance. So can you explain to us what that's about?

1 **A.** Yeah. So the idea of technical importance is
2 understanding whether or not the inventions are important to
3 Google. And, again, I understand this is another consideration
4 that goes into a damages analysis.

5 **Q.** And how did you go about evaluating that question?

6 **A.** A methodology here, again starting with the patents and
7 claims and then also looking at documents and testimony from
8 Google employees and then also what they say about the
9 functionality that's been accused, the speaker groups and what
10 they publish online in their materials.

11 **Q.** So based on that analysis, what conclusion did you reach?

12 **A.** I reached a conclusion that, in fact, there would be
13 technical importance based on some of the documents that I
14 looked at.

15 **Q.** So maybe we can -- sorry.

16 Before we look at those documents, can you tell me why you
17 believe that there is technical importance to Google?

18 **A.** Yes. There's really three reasons, the first of which is
19 that the zone scene technology is important to being able to
20 provide the multiroom functionality that Google describes as a
21 feature of the different players that they have.

22 It's important to Google to be able to group these
23 speakers, to be able to play in synchronization, to have
24 overlapping groups, to allow users to name them, to pre-save
25 them, and all of the requirements of the claim.

1 The second thing is that it's through the interface that
2 Google is able to provide this functionality; having users
3 again be able to create these groups, be able to access the
4 groups, really to be able to separate the functionality of the
5 creation of the groups from when they're activated and when
6 they're used.

7 And then the third is this kind of functionality is
8 critical to Google's ecosystem, and so the ecosystem is really
9 the whole range of different products. And so the ability to
10 integrate third-party music providers, things like Google
11 Voice, those are very important aspects of Google's overall
12 strategy, and so having this technology is important to Google.

13 **Q.** So maybe we can look at a couple of the documents you
14 mentioned.

15 Can I start by having you turn to TX6612 in your binder?

16 **A.** (Witness examines document.)

17 **Q.** What is this document?

18 **A.** This is a Chrome blog. So it's something that Google
19 publishes and it talks about Chromecast Audio and the ability
20 to do multiroom audio.

21 **Q.** Is this a document you've seen before?

22 **A.** Yes, it is.

23 **MR. SHEA:** So at this time, Your Honor, we'd like to
24 move TX6612 into evidence.

25 **MR. PAK:** No objection, Your Honor.

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1 **THE COURT:** Say the number again.

2 **MR. SHEA:** Sure. 6612.

3 **THE COURT:** In evidence. Thank you.

4 (Trial Exhibit 6612 received in evidence.)

5 **THE COURT:** Show it to the jury.

6 **MR. SHEA:** Thank you, Your Honor.

7 Mr. Jay, can we pull that up?

8 **BY MR. SHEA:**

9 **Q.** So, Dr. Almeroth, can you -- can you tell us what we're
10 seeing?

11 **A.** Yeah. So this is a description of Chromecast Audio and
12 some of the features that Chromecast Audio allows you to do.
13 It was published by Google on one of its blogs.

14 And, Mr. Jay, if you go to the next page.

15 There in middle "Blast the same song in every room" and,
16 more importantly, the last portion of this starting about here
17 (indicating) -- I can highlight it -- "Multiroom lets you group
18 Chromecast Audio devices together so you can listen to the same
19 song on multiple speakers."

20 And then it's really describing the steps that we've
21 talked about. Set up is simple, connect to the app, create the
22 group, save it to the group, and be able to do multiroom audio
23 in that way.

24 **Q.** And I think it looks like there's something else here.

25 Can you -- what does it mean when it's referring to casting to

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1 the group?

2 **A.** Yes. Casting to the group, it goes on (as read):

3 "Since anyone with a phone can easily cast" --

4 Mr. Jay, if you can go to the next page at the top --

5 "without pairing, you can sync your home friends together
6 and invite your friends to the DJ."

7 So it's kind of walking through the functionality of these
8 speaker groups as it's been discussed.

9 **Q.** So then maybe we can take a look at another one,

10 Dr. Almeroth. It's TX6292.

11 What is this document?

12 **A.** This is a description of, again, casting and how you can
13 use casting in the context of multiroom audio.

14 **Q.** And have you seen this document before?

15 **A.** Yes, I have.

16 **MR. SHEA:** Your Honor, we'd like to move into evidence
17 TX6292.

18 **MR. PAK:** No objection, Your Honor.

19 **THE COURT:** Received.

20 (Trial Exhibit 6292 received in evidence.)

21 **MR. SHEA:** Mr. Jay, can we pull that up?

22 (Pause in proceedings.)

23 **BY MR. SHEA:**

24 **Q.** So, Dr. Almeroth, what are we seeing here?

25 **A.** A couple things. Under "How to cast," it describes being

1 able to get -- download the Google Home app, which is kind of
2 one of the aspects that's -- that's required, and then this box
3 at the bottom "Do more with your Chromecast built-in speaker,
4 get step-by-step guidance on how to set up multiroom cast audio
5 from website and invite your friends to the cast."

6 And then on the next page -- right, we just need this
7 section here (indicating) -- it says "and the thing that's most
8 important is set up multiroom audio."

9 So in this document when it's describing the features of
10 the speakers and what they can do, one of the important aspects
11 is this multiroom audio that comes from the zone scene patented
12 technology.

13 **Q.** And then, lastly, Dr. Almeroth, did Mr. MacKay provide any
14 testimony that informs your opinions regarding technical
15 importance?

16 **A.** Yes. I believe his testimony was specifically around this
17 idea of the Google ecosystem.

18 **Q.** Maybe we can look at that.

19 **MR. SHEA:** Mr. Jay, can you pull up Mr. MacKay's
20 volume 1 transcript at page 262, line 16?

21 (Pause in proceedings.)

22 **BY MR. SHEA:**

23 **Q.** And so, Dr. Almeroth, can you talk us through this?

24 **A.** Yes. Mr. MacKay was asked (as read):

25 "Do you recall when you decided to implement it in at

1 least the initial version of the speaker group technology,
2 the groups as astatic as opposed to dynamic groups?"

3 And he says (as read):

4 "As I recall, we were trying to be compatible with
5 the existing cast ecosystem."

6 So the ripples of the use of this technology extend just
7 beyond being able to use it in multirooms and set up these
8 overlapping speaker groups, but it extends to the range of
9 products -- and I think Mr. Pak described this in his
10 opening -- across the spectrum of Google products to be able to
11 integrate this functionality in a seamless way and doing that
12 requires use of the patented technology, which ultimately is
13 why these patents are important to Google.

14 **Q.** And that patent technology being the static groups or zone
15 scenes as opposed to the dynamic?

16 **A.** The zone scenes, yes.

17 **Q.** So to summarize then, Dr. Almeroth, what is your opinion
18 as to whether the patented inventions are important to Google?

19 **A.** They are for the reasons I just provided.

20 **Q.** Thank you, Dr. Almeroth.

21 **THE COURT:** All right. Thank you.

22 Let's go to cross-examination.

23 **MR. PAK:** Thank you, Your Honor.

24 (Pause in proceedings.)

25 **MR. PAK:** Your Honor, may I have my colleague hand up

ALMEROTH - CROSS / PAK

1 the cross-examination binder to the witness?

2 **THE COURT:** Of course. Yes.

3 **MR. PAK:** May I proceed?

4 **THE COURT:** You may?

5 **MR. PAK:** Thank you.

6 **CROSS-EXAMINATION**

7 **BY MR. PAK:**

8 **Q.** Good morning, Doctor.

9 **A.** Good morning.

10 **Q.** It's good to see you again.

11 **A.** Thank you, sir.

12 **Q.** So I do have a number of things to cover with you, but I
13 thought I would start with where you left off.

14 And you realize that in this case we're talking about the
15 actual claims of the '885 and '966 patents; correct?

16 **A.** Yes.

17 **Q.** And the actual claims, all of the claims in this case
18 require that the speaker that is being added to a group is,
19 quote, "operating in standalone mode"? Do you agree?

20 **A.** Not exactly.

21 **Q.** Okay. You agree, sir, that "while operating in standalone
22 mode" is language that appears in all of the asserted claims?
23 Do you agree with that?

24 **A.** I believe that's correct.

25 **Q.** And that's part of what you call the setup process claimed

1 in each of the asserted claims; correct?

2 **A.** No.

3 **Q.** Okay. Well, let's take a look at claim 1, and we can
4 have --

5 **MR. PAK:** Mr. Fisher, let's put up claim 1.

6 **THE WITNESS:** Which patent are we doing?

7 **BY MR. PAK:**

8 **Q.** We're going to do '885, claim 1, first. So let's have
9 that up on the screen as well.

10 So you can see this is the '885, claim 1. Do you see
11 that?

12 **A.** I do.

13 **Q.** So to help the jury understand what's going on, if you go
14 down to the "while operating in a standalone mode language," do
15 you see that?

16 **A.** I do.

17 **Q.** So what this is saying is "while operating in a standalone
18 mode in which the first zone player is configured to play back
19 media individually." Do you see that language?

20 **A.** I do.

21 **Q.** So we're going to talk a lot more about what that language
22 means, but that language appears explicitly in claim 1 of the
23 '885 patent; correct?

24 **A.** Yes.

25 **Q.** And then do you see after that the little 1 "receiving"?

1 A. Yes.

2 Q. Little 2, "receiving"?

3 A. Yes.

4 Q. "After receiving" on the right-hand side?

5 A. Yes.

6 Q. "After the given one of the first and second zone scene
7 has been selected," do you see that language?

8 A. Yes.

9 Q. All of those things must be done, according to this claim,
10 while the zone player is operating in standalone mode. Do you
11 agree?

12 A. Not quite.

13 Q. Okay. What do you not agree?

14 A. So the limitation "after receiving the first and second
15 indications," it's at the top of the second column, defines how
16 long it has to be in standalone mode. So continuing to operate
17 in the standalone mode until a given one of the first and
18 second zone scenes has been selected for invocation. So the
19 end of the standalone mode is when the selection for invocation
20 happens.

21 Q. Let's take a closer look at the claim language.

22 Now looking at the last claim element, it says (as read):

23 "Based on the instruction transitioning from
24 operating in standalone mode to operating in accordance
25 with the given one of the first and second predefined

1 groupings."

2 Do you see that language?

3 A. I do.

4 Q. So what actually is stated in the claim is that based on
5 the instruction, you transition. Do you see that?

6 A. I do see that.

7 Q. Okay. Now, I want to take a look -- so you would agree
8 with me at least that "while operating in a standalone mode
9 covers" little 1 and little 2 limitations of claim 1 of the
10 '885 patent? Do you agree?

11 A. I do.

12 Q. Okay. Come back to this.

13 Let's take a look at the '966, claim 1. Again, we're
14 looking at what's happening in the claimed invention this time
15 from the controller's perspective. Do you agree?

16 A. Yes.

17 Q. And you testified previously that we're looking at the
18 same system but describing them from two sides of the same coin
19 with some additional descriptions; correct?

20 A. Yes.

21 Q. So we're looking at the same system. This claim, claim 1
22 of the '966 patent, is covering that system from the
23 controller's perspective. Do you agree?

24 A. I do.

25 Q. All right. So let's see what this language says in

1 claim 1 of the '966 patent.

2 Do you see the language "while serving as a controller"
3 and then it goes on to say "wherein the first zone player is
4 operating in a standalone mode in which the first zone player
5 is configured to play back media individually," colon? Do you
6 see that?

7 A. I do see that.

8 Q. So, again, we see that same language, "operating in a
9 standalone mode"?

10 A. So far it's the same language.

11 Q. And we see the "while" language as well, this time from
12 the controller's perspective; correct?

13 A. Correct.

14 Q. So then let's look at the -- what has to be done while the
15 serving -- while the controller is serving -- or the computing
16 device is serving as a controller wherein the first zone player
17 that it's talking to is operating in a standalone mode. Are
18 you with me?

19 A. Not quite. You seem to be attributing the "while" to both
20 "serving as a controller" and "the first zone player operating
21 in a standalone mode."

22 Q. Did you form opinions in this case assuming that "wherein
23 the first zone player is operating in standalone mode" is not
24 describing as well the "while" language?

25 A. I believe I did. I believe I made a distinction between

1 "while" when it's describing serving as a controller as opposed
2 to while the first zone player is operating in standalone mode
3 to suggest that there's some continuous requirement in the '966
4 patent.

5 **Q.** And that understanding, sir, is the basis for your
6 infringement opinions that you presented to the jury; is that
7 correct?

8 **A.** No. Actually, I covered both scenarios, where if that's a
9 requirement, it's still operating in standalone mode. Because
10 for the '966 redesign, I presented two reasons. The first is I
11 don't think that it requires operating continuously in
12 standalone mode; and the second is just because you stop
13 playing music, doesn't mean that you've left standalone mode.

14 **Q.** Okay. That's something for His Honor to decide.

15 But let me focus on the language for now, and let's make
16 the assumption that the player -- "the first zone player is
17 operating in a standalone mode" is also tied to "while serving
18 as a controller" language. Are you with me?

19 **A.** I think I understand. You're adding the requirement that
20 it has to continuously be in standalone mode.

21 **Q.** And then let's take a look at, with that assumption in
22 mind, the rest of the claim language.

23 "Receiving a first request," do you see that?

24 **A.** I do.

25 **Q.** "Based on the first request," do you see that?

1 A. Yes.

2 Q. "Receiving a second request," do you see that language?

3 A. Yes.

4 Q. "Based on the second request," do you see that language?

5 A. I do.

6 Q. And then do you see "based on the third request"? Do you
7 see that?

8 A. I do.

9 Q. Okay. This is important.

10 What the claims say is (as read):

11 "Based on the third request causing the first zone
12 player to transition from operating in the standalone mode
13 to operating in accordance with the first predefined
14 grouping of zone players."

15 Do you see that?

16 A. I do see that.

17 Q. Okay. So, Doctor, what this language in the claim of the
18 '966 patent is based on the last request, the third request,
19 the zone player transitions from operating in standalone mode
20 to operating according to what you say is group mode. Do you
21 agree?

22 A. I do, and there's not a requirement that it was
23 continuously in standalone mode like the '885 patent.

24 Q. Based on the third request, the zone player transitions
25 from operating in the standalone mode to operating in

1 accordance with the first predefined grouping of zone players,
2 that requirement is present in the '966, claim 1. Do you
3 agree?

4 **A.** I do, but not the continuous requirement.

5 **Q.** And, again --

6 **THE COURT:** I'm -- I can't figure out this -- if this
7 is important, we should spend enough time for the jury to get
8 it but also me to get it because I'm not sure I'm following
9 where you two are having a disagreement.

10 So, please, keep that in mind and you can ask all the
11 questions you want on this, but it's -- it sounds like you're
12 trying to make an important point about this continuous and so
13 forth, and I am not sure I see the point yet.

14 **MR. PAK:** Yes. So let me make the record clear.

15 **BY MR. PAK:**

16 **Q.** Doctor, it is your opinion that the receiving based,
17 receiving based, and based on the -- at least those
18 limitations, the first four limitations after operating in a
19 standalone mode, you believe can be performed when the zone
20 player is not operating in a standalone mode; is that correct?

21 **A.** That's not quite right, and I can explain what I think the
22 requirement is. Maybe that will help.

23 **Q.** Please do. So let's have a clear record on that.

24 **A.** Sure.

25 So I think in the '885 patent, there is a requirement that

1 it continuously be in standalone mode. The requirement here
2 isn't for continuously staying in standalone mode, but at each
3 one of the steps it has to be in standalone mode.

4 And so the idea here is that this is slightly less
5 broad -- or, sorry -- slightly less narrow in the sense that
6 you can have a device in standalone mode and then it could go
7 into group mode and then it could go back into standalone mode
8 because there could be some time between when the first zone
9 scene was created and the second zone scene was created.

10 So it's -- it's probably going to become an important
11 point, but the idea is the '966 patent doesn't use this
12 language like the '885 patent of continuously being in
13 standalone mode across the limitations you've identified.

14 **Q.** Based on that understanding from you, Doctor, when it says
15 based on the third request, the last limitation, causing the
16 first zone player to transition from operating in standalone
17 mode to what you have been calling group mode, which of the
18 above limitations was that referring to?

19 **A.** I don't see where it's referring to a limitation above.
20 The requirement of the language right there is you have to be
21 in standalone mode before the transition.

22 **Q.** But what is it -- so it's your contention that this
23 language on the bottom, based on the third request, is not
24 linked to any of the prior steps receiving a first request,
25 based on the first request, receiving a second request, and

1 based on the third request with respect to the transition
2 language; is that correct?

3 **A.** I'm not sure how to answer that. There's a relationship
4 there. Those zone scenes have to be created, but the specific
5 requirement in this last limitation is based on the third
6 request, that first zone scene, first zone player transitions
7 from operating in standalone mode to group mode. That's the
8 extent of the first part of the limitation.

9 **Q.** So you think this claim covers a scenario where I do the
10 first step in standalone mode, I go to group mode. I get the
11 based on the first request mode -- I stop the group mode. I
12 get the based on the first request mode, and basically you swap
13 back and forth between modes? That would still be covered by
14 what's in claim 1 of the '966 patent?

15 **A.** It allows for that to happen. It may not need to happen.
16 It may not happen in some circumstance, but the claim is more
17 flexible than the '885 that includes the continuously staying
18 in standalone mode requirement.

19 **THE COURT:** Could that -- could we give -- you tried
20 to give an example there, but it's too abstract.

21 Can either the witness or the lawyer give a concrete
22 example that you two would disagree on so we can see whether
23 that example would or would not fall within the claims?

24 Let counsel try first since you're doing the examination;
25 but if you can't do it, then I'm going to ask the witness to do

1 it.

2 **MR. PAK:** Thank you, Your Honor.

3 **THE COURT:** Go ahead.

4 **BY MR. PAK:**

5 **Q.** Let's take the first two, receiving a first request based
6 on a first request. Are you with me?

7 **A.** Yes, sir.

8 **Q.** You do believe those have to be done while operating in
9 standalone mode?

10 **A.** Individually they do, that's correct.

11 **Q.** Okay. So let's say I have a speaker that is playing music
12 individually. Are you with me?

13 **A.** I think so. Yes, I am.

14 **Q.** Then I get a request to that speaker that -- well,
15 actually in this case it would be the controller that's
16 operating with the speaker or the zone player. Are you with
17 me?

18 **A.** Yes.

19 **Q.** So the controller is receiving a request that says "I want
20 to add this zone player that's music -- playing music
21 individually." You're telling us that that receipt of that
22 request must be done in standalone mode when the speaker is
23 playing music?

24 **A.** So you're tying playing music with being in standalone
25 mode, I think something that is not accurate at all.

1 Q. I'm just using an example.

2 You would agree that playing music individually would at
3 least be one of the ways in which the zone player is operating
4 in standalone mode; correct?

5 A. No, because you haven't said whether that zone player is
6 playing music in a group or whether it's playing individually.

7 Q. I thought I said that, but let me clarify it.

8 The speaker or the zone player is playing music
9 individually. Are you with me?

10 A. Okay.

11 Q. It's not a part of a group?

12 A. Okay.

13 Q. You're -- now we're looking at the controller that's
14 controlling that speaker. Are you with me?

15 A. Yes.

16 Q. All right. And you're saying to us -- well, let me ask
17 this question: The speaker is playing music individually. The
18 controller gets a request to add that speaker to a group. All
19 right?

20 A. Yes.

21 Q. You think that speaker is playing music individually, but
22 then it can stop playing music individually so it's no
23 longer -- well, and then it joins another group; is that
24 correct? In this example, let me say that.

25 So the speaker is playing music individually, it receives

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1 a first request to join a group, but then somehow it joins
2 another group. Do you understand that?

3 **A.** No. When you said "it joins another group," that implies
4 it was already in a group, but your question was supposed to be
5 it was playing music individually.

6 **Q.** It was playing music individually, it stops playing music
7 individually, the user tells the zone player "Join another
8 group."

9 **A.** Okay.

10 **Q.** Okay. So now --

11 **A.** You said "join another group"?

12 **Q.** Another group.

13 **THE COURT:** Well, but your premise was that it was not
14 in a group; it was individual.

15 **MR. PAK:** It was operating in an individual mode, it
16 is told to stop, and then it is separately told to join another
17 group.

18 **THE COURT:** Well, all right. Just a group.

19 **MR. PAK:** Just a group.

20 **THE COURT:** All right. "A." Change it to "a group."

21 **BY MR. PAK:**

22 **Q.** A group. So he's told to join an a group. Are you with
23 me?

24 **A.** Yes. I'm -- you said "stop." It wasn't clear whether you
25 meant stop playing music, but okay. You're in the group now.

1 That zone player is in the group.

2 Q. Then it receives a first request while it's in a different
3 group or a group that we were talking about? Sorry.

4 A. Yes.

5 Q. You would say receiving a first request, is that satisfied
6 according to the claim 1 of the '966 patent?

7 A. That example it's not because it's in a group.

8 Q. Okay. Then while it's in that group, the controller
9 receives -- based on that first request, it causes a creation
10 of the first zone scene. Is that limitation satisfied in
11 claim 1?

12 A. You're talking about 1.6. You're not using the same
13 numbers I am, but the first little I?

14 Q. Yes.

15 A. That little I would have to happen in order to meet the
16 limitation of the claim while you're operating in standalone
17 mode. If you are operating in group mode when that little I
18 happens, that would not meet the limitation.

19 Q. So the speaker is still in a group mode.

20 Let's go to the next one. Receive a second request. So
21 the controller receives a request to add that speaker in group
22 mode to join another group. Would that satisfy claim 1,
23 receiving a second request limitation, of the '966 patent?

24 A. I didn't understand your question if it's still in the
25 same group.

1 Q. It's still in the same group.

2 A. Okay. Then it's not operating in standalone mode because
3 it's operating in group mode. That would not meet the
4 receiving a second request limitation.

5 Q. Finally, the speaker that is in a group mode with one
6 group receives -- or at that time the controller based on the
7 second request -- request causes a creation of another zone
8 yet. Is that limitation of claim 1 of the '966 satisfied?

9 A. It sounds like in your examples the speaker is in group
10 mode, so it's not in standalone mode; and so if the
11 limitation -- if the functionality would be performed, the
12 source code would execute where the speaker is in group mode,
13 then it would not meet the limitation.

14 Q. So what we just went through established, according to
15 you, Dr. Almeroth, that a speaker that belongs to at least one
16 group -- are you with me?

17 A. Maybe.

18 Q. Okay. If a speaker belongs to one group and the
19 controller is doing these things that are specified here while
20 that speaker is in group mode, claim 1 of the '966 patent is
21 not satisfied; correct?

22 A. Okay. You started your question with it belongs to the
23 group?

24 Q. Yes.

25 A. Which actually means it could be part of the group, but

1 it's not active; and then you switched to it's in group mode.

2 So, remember, those are two different things. It can be in a
3 group, it can be in multiple groups; but if the group is
4 active, if it's configured to play in synchrony with the other
5 group members, then that's not what standalone mode is.

6 **Q.** Okay. So I want to get that clear as well because that
7 will be important for today's testimony and later when you come
8 back.

9 When you've been talking to the jury about a speaker or a
10 zone player being in a group mode, were you requiring the zone
11 player to be playing music or audio as part of a group?

12 **A.** I think no. Whether or not the device is playing audio,
13 it's more about whether it is as the claim requires, and let
14 me -- so we're doing '966 -- to operate in accordance with the
15 first predefined grouping of zone players such that the first
16 zone player is configured to coordinate with at least the
17 second zone player to output media in synchrony with output of
18 media by at least the second zone player.

19 So to be clear, when the scene is invoked and that speaker
20 is operating in that mode, then it's group mode otherwise the
21 device is in standalone mode.

22 **Q.** So just to make it simpler for the jury, I took a speaker,
23 I added it to a group, now -- and then I invoked the group. So
24 it's coordinating with the other group members. Are you with
25 me?

1 **A.** Yes.

2 **Q.** But there's no sound coming out of any of the speakers in
3 group mode. Are you with me?

4 **A.** Yes.

5 **Q.** You would still call that group mode; correct?

6 **A.** Even though no audio is coming out, if it's doing the work
7 to operate in synchrony, to be able to play the audio in
8 stereo, for example, in synchrony, and it's going through that
9 effort, so that it meets the requirements of the claim that
10 it's configured to coordinate to output the media, then that is
11 what group mode would be.

12 **Q.** So going back to claim 1 of the '966 patent, based on that
13 understanding of group mode, if the speaker or the zone player
14 is in group mode based on that definition and the controller is
15 receiving a first request, based on the first request doing
16 certain things, receiving a second request and based on the
17 second request doing other things, the language of claim 1 of
18 the '966 patent would not be satisfied; correct?

19 **A.** I think that's correct. If it's operating in group mode,
20 which means it's not operating in standalone mode, then those
21 limitations, if they were performed, would not be sufficient to
22 meet the claim in that example.

23 **Q.** Thank you.

24 **A.** Now, of course --

25 **Q.** We can talk about other things.

1 **A.** Okay.

2 **Q.** Okay. We got that clear.

3 So now -- I think. We'll see if we got that clear later.

4 Now, the other thing that you have testified to the jury
5 is that all the claims in this case require overlapping zone
6 scenes; correct?

7 **A.** Yes.

8 **Q.** So if I do multimedia audio or multimedia group zoning but
9 I don't have overlapping zone players in a -- in multiple
10 groups or at least two groups, the claims of the '885 and the
11 '966 are not satisfied; correct?

12 **A.** There was some extra words there; but if you don't have
13 overlapping groups as the claim requires, then you would not
14 infringe '885 or '966.

15 **Q.** Thank you.

16 So now let's turn to -- I think it was an important
17 detour, but let me go back to what you were testifying to
18 previously. You put up 6612.

19 And if I can get that TX6612.

20 This is a document that you ended your presentation with.
21 This is the Chrome blog and it's talking about a device called
22 Chromecast Audio. Do you see that?

23 **A.** I do.

24 **Q.** And it has a date of December 10th, 2015. Do you see
25 that?

1 A. Yes.

2 Q. Now, you looked through this document; correct?

3 A. I did.

4 Q. You studied it?

5 A. Yes, sir.

6 Q. It doesn't say anything about overlapping zone scenes or
7 zone groups; correct?

8 A. I don't believe it does.

9 Q. This document says nothing about while operating in a
10 standalone mode, you add a speaker to another group?

11 A. Correct. It doesn't go into that level of detail.

12 Q. Let's look at 6292, TX6292.

13 Do you recall this document?

14 A. Yes.

15 Q. Again, this document says nothing about overlapping
16 speaker groups; correct?

17 A. It doesn't say so specifically, but the terminology that
18 it uses with respect to multiroom, that's the functionality
19 that it's referring to.

20 Q. I'm not talking about that. I'm talking about what this
21 document says.

22 The document says nothing about overlapping speaker
23 groups. Do you agree?

24 A. I wouldn't say that. I would agree the words don't
25 appear, but it's referencing the technology through the names.

1 Q. The explicit words do not appear; correct?

2 A. Correct, the words don't appear but the concept is there.

3 Q. And this document says nothing explicitly about while
4 operating in a standalone mode to add a speaker to a group;
5 correct?

6 A. It doesn't say that specifically, but it's a feature of
7 the multiroom audio.

8 Q. Let's turn to the next slide -- or the next page in this
9 document.

10 All it says is "set up multiroom"; correct?

11 A. That's correct.

12 Q. On commercial acceptability, do you recall that testimony?

13 A. Yes, I do.

14 Q. And just so that the jury understands what we're talking
15 about, His Honor made a ruling on the older design for the
16 claim 1 of the '885 patent, but he left a question of whether
17 the new design from Google practices any of the claims in this
18 case; correct?

19 A. Correct.

20 Q. Okay. And claim 1 -- actually, so -- and you understand
21 sitting here today that the new design has been commercially
22 deployed to millions of devices out there in the real world?
23 You understand that? By Google?

24 A. Yes, it is in the process of being rolled out.

25 Q. You're not an economist, are you?

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1 **A.** I am not here testifying as an economist.

2 **Q.** You're not here to testify as a marketing expert; correct?

3 **A.** That's correct.

4 **Q.** You didn't perform any surveys; correct?

5 **A.** No, I didn't.

6 **Q.** You're not aware of any evidence that Google received any
7 complaints about the new design when it was commercially
8 deployed to millions of users; correct?

9 **A.** No. It's been a very recent rollout, so I'm not sure
10 there's been time for feedback.

11 **Q.** You're not aware of any such evidence; correct?

12 **A.** That's correct, as of right now.

13 **Q.** And you showed us some testimony from Mr. Shekel. Do you
14 see that?

15 **A.** Yes, sir, I do.

16 **Q.** And Mr. Shekel -- just to make sure we understand, you
17 know that Mr. Shekel left the Cast for Audio group in around
18 2015? You know that?

19 **A.** I don't remember specifically what the date was.

20 **Q.** Let's refresh your recollection.

21 **MR. PAK:** Mr. Fisher, can we have deposition of
22 Mr. Shekel page 135, line 6 through 13?

23 **THE WITNESS:** Is that in the binder.

24 (Video was played but not reported.)

25 **MR. PAK:** We can stop there, Mr. Fisher.

1 **BY MR. PAK:**

2 **Q.** So according to his testimony, he stopped working on the
3 Home app in 2017 or 2018; correct?

4 **A.** Yes. That -- sorry. I thought you said 2015.

5 **Q.** I apologize.

6 **A.** Yeah.

7 **Q.** All right. So Mr. Shekel's testimony that you showed for
8 commercial acceptability, he had left the Home app group by at
9 least 2018. Do you understand that?

10 **A.** Yes, I do. He had a lot of experience certainly.

11 **Q.** So his testimony had nothing to do with the new design
12 that was rolled out starting in December of 2022. Do you
13 agree?

14 **A.** I do not.

15 **Q.** He was not talking about any personal knowledge of the new
16 design when he testified about his work on the Home app team;
17 correct?

18 **A.** Not exactly.

19 **Q.** Doctor, he left the team in 2018. He stopped working on
20 the Home app. He was not talking about the new design, was he,
21 sir?

22 **A.** Not exactly. He was talking about a feature of what the
23 new design was. So whether or not he was testifying about the
24 exact redesign or the exact feature that went into the
25 redesign, I think he was.

1 Q. Doctor, he -- the design changed in December of 2022.
2 Mr. Shekel had already left the team in 2018. Do you
3 understand that history?

4 A. I do, but he's talking about the same feature that was the
5 focus of the redesign.

6 Q. Are you a hundred percent certain about that?

7 A. Yes.

8 Q. Okay. Now, you didn't do your own independent research
9 into commercial acceptability other than what you just
10 presented to the jury; correct?

11 A. I did.

12 Q. Now -- well, you didn't present that to the jury?

13 A. No, not exactly. I described that I had done an analysis
14 and a methodology. That methodology included considering a
15 number of different sources. The one piece of evidence that I
16 presented to the jury was Mr. Shekel, but there's other things
17 I did for --

18 Q. Do you understand that what you didn't present in your
19 direct examination is not evidence in this case?

20 A. I understand, but I understand the jury heard -- should
21 have heard that I relied on a variety of evidence in reaching
22 my conclusions.

23 Q. Now, I want to focus on the claims again.

24 You understand the asserted claims are device claims;
25 correct?

1 **A.** Yes, sir.

2 **Q.** It's your opinion that it's possible to meet all of the
3 limitations, for example, of claim 1 of the '885 patent based
4 on a single zone player? Is that your testimony?

5 **A.** Yes, sir.

6 **Q.** It's also your opinion that claim 1 of the '885 patent is
7 directed to a zone player programmed to be able to perform the
8 claimed functions. Does that sound right?

9 **A.** The zone player does have to have the programming to
10 perform the functions identified in the limitation.

11 **Q.** You read the entirety of the specification of the '885
12 patent; correct?

13 **A.** Yes, I did.

14 **Q.** Now, you would agree with me, sir, that nowhere in that
15 specification is actually source code for performing any of the
16 limitations of the '885, claim 1; correct?

17 **A.** Not exactly source code. It's more algorithms. So not
18 the specific instructions but more the algorithms.

19 **Q.** My question is simple. Is there any source code disclosed
20 in the '885 specification at all?

21 **A.** Not the source code instructions. Just the algorithms.

22 **Q.** Okay. And looking at claim 1 of the '966 patent, again
23 it's your view that the '966 patent can be practiced by a
24 single controller installed with software making it capable of
25 performing the claimed functions. Do I have that right?

1 **A.** I think you do.

2 **Q.** So it's your opinion that a single controller or an app
3 would be sufficient to meet all the limitations of claim 1 of
4 the '966 patent even when there are no zone players around?

5 **A.** That's correct. The way the claim is written is to have
6 that programming on the device.

7 **Q.** You believe that claim 1 of the '966 patent can be met by
8 a device that's not plugged in; correct?

9 **A.** As long as it's a device that has the -- the Google Home
10 app on it, that would be sufficient to meet the claim.

11 **Q.** It's your opinion that claim 1 of the '966 patent can be
12 met by a device that is not connected to a network; correct?

13 **A.** Yes. As long as it has what's required of the claim, then
14 that's correct.

15 **Q.** And it's also your opinion for both of these claims, the
16 claim 1 of the '966 patent and claim 1 of the '885 patent, that
17 you don't actually have to perform the functions that are
18 stated in order to meet the claim language; is that correct?

19 **A.** That's correct. As long as you have the programming with
20 that capability, this is not a method claim that requires
21 actually performing the steps.

22 **Q.** And, Doctor, you would agree with me as a technical expert
23 who has testified a number of times in patent cases, that you
24 have to apply and interpret a claim in the same way for
25 infringement as you would for the question of invalidity? Do

1 you agree?

2 **A.** Yes. It's a different standard; but with respect to the
3 claim scope, it's the same.

4 **Q.** So if a prior art meets the conditions that you set forth
5 with me now, then it would be sufficient to invalidate claim 1
6 of the '885 patent and claim 1 of the '966 patent; correct?

7 **A.** You said "the conditions," which is a little bit vague. I
8 mean, there's specific requirements for what you need to do to
9 invalidate a claim. As long as you meet those, then it would
10 be invalid.

11 **Q.** Let me make it even more simple.

12 The testimony that you gave in response to my questions
13 about capability, not requiring connection to a power, not
14 being connected to a network, all of that would also apply to
15 prior art as well?

16 **A.** I would have to double-check if that's the standard. I
17 think that's right, but it might get into a legal question.

18 **Q.** You understand that what infringes later if it comes
19 before invalidates the claim? You understand that concept?

20 **A.** That, I think is a well-accepted tenant.

21 **Q.** Now, I want to focus on Figure 6 of the '885 patent.

22 And the specification again is the same between these two
23 patents.

24 **MR. PAK:** So if we could have Figure 6, Mr. Fisher.

25 (Pause in proceedings.)

1 **BY MR. PAK:**

2 **Q.** You believe that this figure discloses the operating in
3 standalone limitations of both patent claims at issue; correct?

4 **MR. SHEA:** Objection, Your Honor. So Mr. Pak appears
5 to be veering into the question of a written description, which
6 is an issue for which Google has the burden on and is an issue
7 in which Dr. Almeroth is going to be presenting another
8 discussion on.

9 I don't think it's appropriate for this, and I don't think
10 we got into the written description support for the claims in
11 Dr. Almeroth's opening.

12 **THE COURT:** Well, it may be relevant to written
13 description, but I can see ways in which it's relevant to other
14 things. Mr. Pak is doing cross-examination.

15 Objection overruled.

16 Please continue.

17 **BY MR. PAK:**

18 **Q.** Doctor, you believe that Figure 6 illustrates the while
19 operating in standalone mode limitations of the asserted
20 claims; correct?

21 **A.** I don't recall specifically what I said in my reports with
22 respect to Figure 6. I'd have to go back and check. I
23 certainly might have referred to it as supporting that concept
24 in the context of how Figure 6 is described.

25 **Q.** I'm asking you now: Where in Figure 6 is the concept of

1 while operating in standalone mode disclosed, if anywhere?

2 **A.** I would have to go back and look at my report to see what
3 I said. What I basically would have to do for you is to look
4 at what Figure 6 says and then check in with some of these
5 numbered boxes. I believe there's support in the
6 specification, but I would have to try and find that if you
7 like.

8 **Q.** In the interest of time, I'm asking you now one last time:
9 Can you tell us anywhere in Figure 6 a disclosure of while
10 operating in standalone mode limitations of the asserted
11 claims? If you can't, you can't.

12 **A.** Yeah, it would be the same answer.

13 **Q.** One thing you and I -- let me ask it this way: You agree
14 that under your interpretation, a zone player cannot be in both
15 individual standalone mode and group mode at the same time? Do
16 you agree?

17 **A.** I think that's correct. I don't think they can be in the
18 two modes at the same time.

19 **Q.** They have to be in one or the other; correct?

20 **A.** I believe that's correct.

21 **Q.** And it's your opinion in this case, as you presented to
22 the jury, that standalone mode for the zone player can be a
23 situation where there is no music coming out of that speaker or
24 zone player; correct?

25 **A.** That question is ambiguous. So you could be in group mode

1 with no audio coming out or you could be in standalone mode
2 with no audio coming out. So your question just said "no audio
3 coming out." You didn't specify which.

4 **Q.** Okay. So let's explore that.

5 So what happens if I have a speaker that's been added to a
6 group -- are you with me?

7 **A.** So far.

8 **Q.** -- and the user decides to play just individual music on
9 that player? What would happen? Which mode is it in?

10 **A.** In -- are you asking about Google's products.

11 **Q.** I'm just talking generally.

12 **A.** It would depend on -- it might be better to use Google
13 products as an example since --

14 **Q.** I'm talking about the claims right now.

15 **A.** Okay.

16 **Q.** So you said it can't be in both modes. If I have a zone
17 player that is configured to operate in group mode because it
18 has been added to a group, but the user decides there's a group
19 way to do it, there's an individual way to do it, I'm going to
20 select the individual way to do it and play individual music on
21 that zone player while it is still part of a group. Which mode
22 is it in?

23 **A.** So your question is vague. You said it's configured to be
24 in the group, it's part of the group, but that doesn't
25 distinguish between whether the group is invoked or not.

1 So if you're telling me that it's configured to play back
2 in audio, so it's in -- it's in group mode -- sorry.

3 You're configured to play back audio in synchrony with the
4 other members of the group, then it's in group mode.

5 If a user wants to have that speaker play in standalone
6 mode, then they can take it out of group mode, it goes into
7 standalone mode, and then they can play audio individually or
8 not.

9 **Q.** Again, it's your view that a zone player cannot be both
10 in -- operating in group mode or configured for operation in
11 group mode and also be configured for operation in standalone
12 mode; is that correct?

13 **A.** I believe that's correct. It has to either be configured
14 for group mode or in standalone mode.

15 **Q.** If I look at a speaker or a zone player and it's not
16 playing music, without any more information according to you,
17 you couldn't figure out whether it was in standalone mode or in
18 group mode; correct?

19 **A.** So if I just look at the speaker and it's not playing
20 audio, I probably can't tell unless it's powered off. But if
21 it's powered on and it's not playing, then unless I do some
22 additional investigation, I can't tell whether or not it's in
23 group mode or in standalone mode. I could do some
24 investigation and see; but just looking at it, I don't think I
25 could tell.

1 Q. One of the things that you studied as part of your work on
2 this case is the prosecution history; is that correct?

3 A. Yes.

4 Q. Prosecution history is the back-and-forth history of the
5 patent examiner and Sonos that led to the issuance of these two
6 patents?

7 A. That's correct.

8 Q. Okay. Now, you agree that it's important as an expert to
9 study the prosecution history to understand what's covered by
10 the claims and what's not covered by the claims; correct?

11 A. Yes. It's kind of the first step to understanding what
12 that claim -- what the claim scope is.

13 Q. I'd like to introduce, actually TX004 in your binder.

14 A. Yes, sir.

15 MR. PAK: And just for the record, Your Honor, I did
16 not include the entirety of the prosecution history, but these
17 are the relevant excerpts for the doctor.

18 BY MR. PAK:

19 Q. If you could take a look and confirm that this appears to
20 be relevant excerpts from the '966 prosecution history.

21 A. (Witness examines document.) I'm not sure what you mean
22 by relevant. I'm not trying to be a --

23 Q. Just I'll say excerpts.

24 A. -- uncooperative, but --

25 Q. Absolutely. Can you just confirm that this appears to be

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1 selected excerpts from the prosecution history of the '966
2 patent, TX004?

3 **A.** They do.

4 **MR. PAK:** I'd like to move TX004, the prosecution
5 history of the '966 patent, into evidence, Your Honor,
6 excerpts.

7 **MR. SHEA:** Your Honor, I'm sorry. I'm going to object
8 to --

9 **THE OFFICIAL REPORTER:** I'm sorry. Can you go to a
10 microphone? I can't hear you.

11 **THE COURT:** What's your objection?

12 **MR. SHEA:** Your Honor, we'd like to object to moving
13 only relevant excerpts into evidence, if that's what's
14 happening. We want to make sure the full record --

15 **THE COURT:** That's what he's doing, but I'll give
16 you -- I'm going to let it in with the proviso that you can add
17 in any additional features -- not features but items from the
18 same prosecution history for the sake of completeness.

19 So with that, objection overruled. 4 is received in
20 evidence.

21 (Trial Exhibit 4 received in evidence.)

22 **MR. PAK:** Thank you, Your Honor.

23 **BY MR. PAK:**

24 **Q.** So if you look at page 1 -- Mr. Fisher, yes -- so we can
25 see this is Patent Number 1046966. Do you see that?

1 A. Yes.

2 Q. And do you see that this was for Sonos on the left-hand
3 side at the top?

4 A. Yes.

5 Q. Okay. So this is the '966 patent that we have been
6 discussing; correct?

7 A. I see that.

8 Q. And if you turn to page 19, and this is again Trial
9 Exhibit TX004 -- if we go to page 19, there's something called
10 "notice of Allowance." Do you see that?

11 A. I do.

12 Q. Can you explain to the jury, what is notice of allowance?

13 A. I think it would be exactly those words. I think this is
14 the portion that says that the patent is being granted.

15 Q. So this is the notice that the patent examiner gave to
16 Sonos saying "I'm going to grant or issue the claims that
17 appear in the '966 patent." Do you understand that?

18 A. I do.

19 Q. Okay. So if you go to -- and this is dated
20 September 15 -- September 5, 2019. Do you see that?

21 A. I see that's the date mailed, yes.

22 Q. So the examiner here, Mr. McCord, mailed this notice of
23 allowance to Sonos for the '966 patent. Do you understand
24 that?

25 A. That seems right.

1 Q. So let's go to page 24 to 25.

2 (Pause in proceedings.)

3 BY MR. PAK:

4 Q. There's the examiner's amendment. Do you see that?

5 A. I wasn't sure which numbers you were reading; but based on
6 what's on the screen, I have it up.

7 Q. Okay. Then I'm going to focus now on the -- an earlier
8 section, and let's go to page 30.

9 THE COURT: Earlier or later?

10 MR. PAK: It's later in the page sequencing,
11 Your Honor. The way this works is the earlier-in-page sequence
12 is later in time.

13 THE COURT: Okay.

14 BY MR. PAK:

15 Q. So if you go to page 30, this is reasons for allowance.
16 Do you see that? So as part of this notice of allowance, there
17 is a reasons for allowance. Do you see that?

18 A. I do see that section.

19 Q. And you studied the reasons for allowance in forming your
20 opinions in this case; correct?

21 A. To the extent that they were relevant, I would have looked
22 at the prosecution history.

23 Q. And just so it's clear on the record, you know that a
24 Yamaha prior art reference called DME was reviewed and
25 considered by the examiner for the '966 patent; correct?

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1 **A.** That's my recollection.

2 **MR. SHEA:** Your Honor, I'm just going to object again.
3 We're now veering into discussions of prior art again, which I
4 just don't think is appropriate for this examination. We're
5 going to have Dr. Almeroth talk about these issues again next
6 week, and it's Google's burden.

7 The jury hasn't heard either Dr. Almeroth's position on
8 these or Google's own position as the burden holder on issues
9 of prior art.

10 **MR. PAK:** I'll respond that this is going to be tied
11 to infringement issues.

12 **THE COURT:** Overruled.

13 Please answer.

14 **MR. PAK:** Can I have the question read back?

15 (Record read as follows: "And just so it's clear on
16 the record, you know that a Yamaha prior art reference
17 called DME was reviewed and considered by the examiner
18 for the '966 patent; correct?")

19 **THE WITNESS:** My recollection is there were a number
20 of documents related to Yamaha products. I think DME was one
21 of them, but I'd have to double-check.

22 **BY MR. PAK:**

23 **Q.** It says here, this is the patent examiner speaking in this
24 notice of allowance, the patent examiner wrote (as read):

25 "Particularly while Yamaha DME prior art operates to

1 accomplish playback of selected media in synchrony on a
2 selected set of first, second, et cetera, playback devices
3 when a scene is invoked upon set of players."

4 Do you see that portion?

5 **A.** I do. You added some words as you read, but I see where
6 you're reading from.

7 **Q.** I'll read it again more clearly on the record (as read):

8 "Particularly while DME operates to accomplish
9 playback of selected media in synchrony on a selected set
10 of first, second, et cetera, playback devices when a scene
11 is invoked upon said set of players."

12 Did I read that correctly?

13 **A.** Yes.

14 **Q.** So, again, DME is the Yamaha prior art; correct?

15 **A.** I -- I would have to go back and check. I haven't
16 reviewed this in a while. It wasn't really relevant to my
17 infringement opinions, so I would have to check what it's
18 exactly referring to for DME.

19 **Q.** I'll just stick with DME. You understand that's prior
20 art?

21 **A.** That's what's being discussed here. Whether it's actually
22 prior art or not, it depends on what it's referencing.

23 **Q.** It says "DME" -- what the examiner says is (as read):

24 "DME discloses accomplishing playback of selected
25 media in synchrony on a selected set of playback devices

1 when you invoke a scene."

2 You agree with that portion; correct?

3 **A.** No. That's your -- you're, again, substituting in words
4 for what the examiner actually said.

5 **Q.** Okay. Well, you agree that the examiner did make this
6 finding in his notice of allowance for the DME reference, the
7 portion that I read into the record?

8 **A.** The examiner said what the examiner said. I absolutely
9 agree with that.

10 **Q.** Do you agree or disagree with the examiner on that point?

11 **A.** I -- it -- I think the examiner wrote what they wrote.
12 With respect to interpreting that statement to mean disclosure
13 of aspects of the limitations of the '966 patent, I'd have to
14 see what limitations you're talking about. So I think the
15 statement is what it is. I might disagree how you would apply
16 that statement.

17 **Q.** I'm asking you: Do you disagree with the statement
18 "Particularly while DME operates to accomplish playback of
19 selected media in synchrony on a selected set of first, second,
20 et cetera, playback devices when a scene is invoked upon said
21 set of players"?

22 **A.** I agree that's what the examiner said, but the
23 implications of that statement for infringement or validity
24 would depend on how you want to interpret it.

25 **Q.** I'm not asking what the examiner wrote. I'm asking you,

1 in substance, do you agree with that statement?

2 **A.** Oh, in terms of in substance, I'd have to look at what he
3 says in the surrounding paragraphs to see whether or not that
4 in isolation is something I'd agree with, and so that's why I'm
5 being very careful to say he wrote what he wrote. As to the
6 implications of what he wrote for validity or infringement, I
7 would have to see what those characterizations in that is.

8 **THE COURT:** I think counsel is not asking you quite
9 that question.

10 **THE WITNESS:** Okay.

11 **THE COURT:** The examiner -- are you -- are you
12 familiar sufficiently with the DME prior art reference to
13 confirm or deny whether the examiner -- in that phrase that
14 begins "While DME operates," whether the examiner said it
15 correctly?

16 You can either say, "Yes, he did," "No, he didn't," or "I
17 don't know."

18 **THE WITNESS:** Not from memory. So, no, not from
19 memory.

20 **THE COURT:** All right. So he doesn't -- he doesn't
21 have a good enough memory to -- so you're going to have to
22 either address this in some other way, but what do you want him
23 to do? Bring out the Yamaha brochure and figure out if he got
24 it right? Or you can ask -- he's an expert. You can ask him
25 to assume that he got it right and move to your next point.

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1 **BY MR. PAK:**

2 **Q.** Let's assume the examiner got that right.

3 **A.** Okay.

4 **Q.** Are you with me?

5 I'm going to read the next finding from the examiner on
6 DME (as read):

7 "DME does not allow for continuous output of media on
8 a particular playback device and joining of a continuous
9 output by a selected playback device or a set thereof in
10 synchrony with media currently playing back on the
11 particular playback device."

12 Do you see that?

13 **A.** I do.

14 **Q.** Let's assume the examiner got that right. Are you with
15 me?

16 **A.** Not exactly. I'm going to need a minute to read that
17 because I'm not exactly sure what he's saying.

18 **THE COURT:** All right. Take a moment to read it.

19 **THE WITNESS:** (Witness examines document.)

20 **THE COURT:** Can the jury even see that on the screens
21 over there? I don't know.

22 (No response.)

23 **THE WITNESS:** (Witness examines document.) I'm not a
24 hundred percent sure what it's exactly saying.

25 **THE COURT:** Then you need to move on and say "Assume

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1 he got it right," and go to your next point.

2 **BY MR. PAK:**

3 **Q.** Assume he got the statement correctly, are you with me?

4 **A.** Okay, yes.

5 **Q.** Let's go to claim 1 of the '966 patent.

6 **MR. PAK:** And, Mr. Fisher, if we can leave this
7 underlined portion on top and put the claim language.

8 Yes. Thank you.

9 And let's put up -- actually, we can use PDX2.16 -- or,
10 actually, why don't we use PDX2.16, which is from
11 Dr. Almeroth's opinions.

12 **BY MR. PAK:**

13 **Q.** Assuming that the examiner got these statements right
14 about DME does not allow for continuous output of media, which
15 limitation in claim 1 was missing from DME?

16 **A.** I would have to study that. I don't think I can give you
17 an opinion off the top of my head.

18 **Q.** Do you recall that the language says in claim 1 of the
19 '966 patent "the first zone player is operating in a standalone
20 mode"? Do you recall that?

21 **A.** Yes. I have -- I see that on the screen.

22 **Q.** Did you ever analyze these prosecution history statements
23 about DME to perform your analysis of what that phrase means?

24 **A.** My recollection is I certainly would have considered it.
25 I don't recall that --

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1 **THE COURT:** No. No.

2 **THE WITNESS:** Sorry.

3 **THE COURT:** Would have -- he's asking for your actual
4 memory. If you -- whether you did or you didn't. "Would have
5 done" is not the same. That's -- that's speculation as to
6 whether -- and you're making an inference.

7 So is your memory good enough to say, "Yes, I remember
8 doing it," or, "No, I don't remember doing it"? You've got
9 to -- you can't go resort to "I would have done."

10 **THE WITNESS:** Understood, Your Honor. That's a good
11 point.

12 I don't specifically remember doing it as I sit here right
13 now. I've looked at thousands of pages of documents.

14 **BY MR. PAK:**

15 **Q.** And just doing back to the statement on the left, when he
16 talks about continuous output of media in the examiner's
17 statement, you understand that's talking about sound or audio
18 coming out of a player or a speaker? Do you understand that?

19 **A.** I think so. I think it's describing playback.

20 **Q.** Now, just briefly I'm going to make sure that we have the
21 record on the other prosecution history.

22 **MR. PAK:** So let's pull up -- Your Honor, I'd like to
23 have him to take a look at TX6, which is the excerpts from the
24 '885 patent.

25 \\

1 **BY MR. PAK:**

2 **Q.** And, Doctor, if you can take a look at that excerpts.

3 **A.** (Witness examines document.)

4 **MR. SHEA:** Your Honor, I'm going to raise the same
5 objection or request.

6 **THE COURT:** Well, I might eventually sustain it; but
7 for now, overruled.

8 Any objection to number 6 coming in? I'll give you the
9 same opportunity to supplement it with your key documents.

10 **MR. SHEA:** Thank you. Yes, Your Honor.

11 **THE COURT:** All right. 6 is in.

12 (Trial Exhibit 6 received in evidence.)

13 **MR. PAK:** Thank you, Your Honor.

14 **BY MR. PAK:**

15 **Q.** So let's pull up 006.

16 And at the top it's "Robert A. Lambourne, Zone Scene
17 Management." Do you see that?

18 **A.** I do.

19 **Q.** If you turn to the next slide -- or next page.

20 **A.** (Witness examines document.) Okay.

21 **Q.** I'll represent to you, because I know that it doesn't have
22 the '885 number, but I'll represent to you that this is the
23 excerpts from the '885 prosecution history. Are you with me?

24 **A.** Yes, sir.

25 **Q.** All right. So let's turn to the reason for allowance for

1 the '885 patent, which is TX006, and we're going to go to
2 page 5847.

3 And do you see at the top here that we see the same
4 examiner Paul McCord?

5 **THE COURT:** How do we find that page 5000?

6 **MR. PAK:** If you scroll down, I believe, Your Honor,
7 it's probably in one of the slip sheets toward the back.

8 **THE COURT:** 5847... Okay. I'm in the ballpark.

9 **MR. PAK:** Okay. Thank you, Your Honor.

10 **BY MR. PAK:**

11 **Q.** So this is the same examiner Paul McCord. Do you see
12 that?

13 **A.** It looks to be. I don't know.

14 **Q.** And the named inventor again is Robert A Lambourne;
15 correct?

16 **A.** It is.

17 **Q.** And this determination was mailed on August 19th, 2020;
18 correct?

19 **A.** Yes.

20 **Q.** And if you go to page 5850 in this document, we see 5850.

21 **MR. PAK:** And then if you go turn to the previous
22 page, Mr. Fisher, 5849.

23 **BY MR. PAK:**

24 **Q.** This one says "Notice of Allowability." Do you see that?

25 **A.** I do.

1 Q. And just for the record, this is looking at the
2 prosecution history 5849 of TX6, Notice of Allowability.

3 And let's turn to the next page, 5850 of TX006.

4 This also has reasons for allowance from the patent
5 examiner. Do you see that?

6 A. I do.

7 Q. And if you turn to the sentence beginning with
8 "Particularly," do you see that?

9 A. No.

10 Q. Okay. "Reasons for Allowance," the second sentence reads
11 "Particularly while DME"?

12 A. Ah, yes. I see it now.

13 Q. Okay. So I'll read the whole sentence into the record (as
14 read):

15 "Particularly while DME operates to accomplish
16 playback of selected media in synchrony on a selected set
17 of first, second, et cetera, playback devices when a scene
18 is invoked upon said set of players, DME does not allow
19 for continuous output of media on a particular playback
20 device and joining of the continuous output by a selected
21 playback device or set thereof in synchrony with media
22 currently playing back on that particular playback
23 device."

24 Do you see that?

25 A. I do.

1 Q. So I assume that you did not -- you don't recall the
2 details of the DME reference sitting here today; is that
3 correct?

4 A. Not as I sit here right now. You haven't given it to me,
5 so I don't have anything even to refresh my recollection.

6 Q. And you do not recall analyzing this particular language
7 with respect to any limitation of the '966 patent sitting here
8 today -- or '885 patent?

9 A. That was my hesitation. As I sit here now, I've looked at
10 thousands of pages, I don't have a specific recollection.

11 Q. But this statement for the '885 patent in the notice of
12 allowability says "continuous output of media." Do you see
13 that?

14 A. I do see those words.

15 Q. Again, that's talking about the device or the player
16 playing audio. Do you agree?

17 A. That's -- that's what it seems to imply without looking at
18 any of the surrounding text or going back and looking at DME.

19 Q. And assuming that the examiner got this right on the DME
20 reference for the '885 patent -- let's pull this to the left
21 and put up your demonstrative PDX2.10.

22 Looking at claim 1 of the '885 patent, I'll ask this
23 question: Assuming that the examiner got it right with respect
24 to his findings on the DME reference in his reason for
25 allowance, which limitation, if any, corresponds to that reason

1 in claim 1 of the '885 patent?

2 **A.** I'm sorry. I'm not prepared to do that analysis by
3 looking at that sentence and trying to match it up on the fly.
4 If I did it in my report, I could go back and review that, but
5 I don't remember exactly what the mapping would be.

6 **Q.** So sitting here today, you just don't recall doing that
7 type of analysis; correct?

8 **A.** I don't recall doing that mapping.

9 **MR. PAK:** We can put this down.

10 **THE COURT:** Now you said you were going to tie this
11 into infringement, so which --

12 **MR. PAK:** Yes.

13 **THE COURT:** Let's do that before we take a break. I
14 think I'd like to hear your tying it in.

15 **BY MR. PAK:**

16 **Q.** So do you understand that Dr. Schonfeld, Google's expert
17 in this case, has taken the position that while operating in
18 standalone mode is talking about a scenario where the zone
19 player is putting out audio or playing music? Do you
20 understand that?

21 **A.** I believe that's correct.

22 **Q.** And you disagree with him; correct?

23 **A.** I do.

24 **Q.** And -- but yet we saw some prosecution history statements
25 that discussed continuous output of media on the device that

1 was being added to a group as the thing that was missing in the
2 prior art reference DME; correct?

3 **A.** No, I disagree. I think you're reading much more into
4 that reason for allowance. I think to the extent that you're
5 making an argument as to what the claim should be limited to
6 based on the prosecution history, that's a legal determination
7 that should be made.

8 And so I -- I don't believe that the statements that
9 you've read justify saying that the claims require defining
10 standalone mode to be playing audio.

11 **Q.** You haven't done that analysis according to your
12 recollection sitting here today; correct?

13 **A.** I'm sorry, which's analysis?

14 **Q.** Analysis of whether there is a mapping of any of the claim
15 limitations to the statements found in the notice of allowance.
16 You don't recall doing that analysis sitting here today;
17 correct?

18 **A.** No, but I did a different kind of analysis that goes to
19 the question and the inference you're trying to draw.

20 **Q.** Now, sitting here today, can you look the jury in the eye
21 and tell them that you have read all of the examiner's
22 statements and agree with him with respect to the prosecution
23 of the '885 patent?

24 **A.** I cannot because I haven't looked at all of those
25 statements to see if I agree or disagree with them.

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1 **Q.** Can you look the jury in the eye and tell them that you
2 have looked at all of the examiner's statements during
3 prosecution of the '966 patent and that you agree with him or
4 disagree with him?

5 **A.** I can't. I haven't looked at every single one of these
6 statements across 6,000 pages for one and 4,000 pages for in
7 the other to say whether I agree or disagree with each of those
8 statements.

9 I've actually reviewed them all but from the perspective
10 of saying for each one yes or no, I -- I'm not going to say I
11 did that.

12 **MR. PAK:** Okay, Your Honor, I think we can take a
13 break.

14 **THE COURT:** All right. Time for a break.

15 Remember the admonition. We'll see you back here in
16 15 minutes.

17 **THE CLERK:** All rise for the jury.

18 (Proceedings were heard outside the presence of the jury:)

19 **THE COURT:** All right. Anything for the judge before
20 I take my break?

21 **MR. SULLIVAN:** No, Your Honor.

22 **THE COURT:** The witness can take a break. You're on
23 cross-examination.

24 Everyone else 15 minutes.

25 **THE WITNESS:** Thank you, Your Honor.

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1 **THE CLERK:** Court is in recess.

2 (Recess taken at 11:25 a.m.)

3 (Proceedings resumed at 11:41 a.m.)

4 (Proceedings were heard out of the presence of the jury:)

5 **THE CLERK:** Please remain seated. Come to order.

6 **MS. BAILY:** Your Honor, there's one issue that might
7 come up.

8 **THE COURT:** What's the issue, please?

9 **MS. BAILY:** Sonos added some deposition video that we
10 may get to today a few hours ago, and I wanted to get
11 Your Honor's guidance.

12 So there's some questions about the draft complaint that
13 Sonos sent to Google in addition to the DJ complaint; and for a
14 subset of the questions -- and so I understand they're planning
15 to play that today.

16 For a subset of the questions, the witness invoked the
17 privilege and we don't believe it's appropriate to show the
18 invocation of the privilege to the jury.

19 Now, obviously if we claim --

20 **THE COURT:** What privilege? The Fifth Amendment?

21 **MS. BAILY:** The litigation privilege, attorney-client
22 privilege.

23 **THE COURT:** I'd have to see it and read it, and see --
24 know what the question was. What is your issue?

25 **MS. BAILY:** Just whether -- you know, obviously if a

1 witness invokes the attorney-client privilege and doesn't
2 answer a question, we can't put the witness up to answer the
3 question for the jury; but our -- the guidance we're seeking is
4 whether it's appropriate -- we don't believe it is -- to show
5 the assertion by the lawyer defending the attorney of the
6 attorney-client privilege during the deposition.

7 **THE COURT:** All right. Here's the -- what I'm
8 going -- we're holding up the jury. I will get to this point
9 in due course, but we're not going to show that part until I
10 rule on it. So you don't have to -- but I am not making a
11 ruling one way or the other, but we've got a jury waiting.
12 We're not going to hold them up.

13 **MS. BAILY:** Thank you, Your Honor.

14 **MR. ROBERTS:** Your Honor, one very brief issue.

15 **THE COURT:** It's going to have to be 10 seconds.

16 **MR. ROBERTS:** It will.

17 I'd like a clarifying instruction that the Court construes
18 the claims and will give the claim construction to the jury.
19 The jury doesn't -- the jury shouldn't attempt to independently
20 use the examiner's statements to determine the meaning of the
21 claims. That's the role for the Court, and the Court will so
22 instruct the jury.

23 **THE COURT:** I'm not going to give that yet. I will
24 give an instruction in due course; but on your own examination,
25 this witness went into great detail on what he thought the

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1 claims meant. So counsel is entitled to cross-examine him on
2 what he took into account in coming up with his opinion as to
3 what these claims meant; and if he didn't take into account
4 what the examiner said, maybe the jury would discount what he
5 has to say.

6 I think it's a perfectly okay line of questions, but I
7 will make clear in due course what I think the claims mean if
8 they don't mean plain and ordinary meaning.

9 Okay. Let's bring in the jury.

10 (Proceedings were heard in the presence of the jury:)

11 **THE COURT:** Welcome back. Be seated.

12 **MR. PAK:** May I proceed, Your Honor?

13 **THE COURT:** Yes. Go ahead.

14 **MR. PAK:** Thank you.

15 **BY MR. PAK:**

16 **Q.** Just to wrap up where we were, Dr. Almeroth, you've been
17 in cases where you ended up disagreeing with an examiner on a
18 certain point; correct?

19 **A.** Yes.

20 **Q.** And so it's not your testimony to the jury here today that
21 the examiner always gets it right when they look at the prior
22 art and makes findings about a claim; correct?

23 **A.** I certainly haven't talked today about the examiner or
24 validity issues, so I certainly haven't talked today about what
25 the examiner said or didn't say.

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1 Q. But, generally speaking, you're not testifying here today
2 to say that what the examiner did or considered is not always
3 correct?

4 THE COURT: That's too convoluted.

5 MR. PAK: Sorry.

6 THE COURT: That's double negatives. Please, ask it
7 in a positive way.

8 BY MR. PAK:

9 Q. Dr. Almeroth, is it your testimony that a patent
10 examiner's finding about the prior art and findings about what
11 the claims cover and don't cover are always true?

12 A. No, that's not my opinion.

13 Q. Thank you.

14 Now, we did have exchange earlier about whether a speaker
15 is operating in standalone mode or whether it's operating in
16 group mode, and I thought it would be helpful to actually use a
17 demonstrative to help us understand your testimony for the
18 guidance of the jury.

19 Take a look -- again, just to set the stage, it's your
20 testimony that a zone player cannot be in both operating in
21 standalone mode and operating in group mode; correct?

22 A. It's my testimony that when you're operating in group
23 mode, you are not operating in standalone mode.

24 Q. Okay. Thank you.

25 And so, let's take a look at demonstrative DDX4.3.

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(Pause in proceedings.)

BY MR. PAK:

Q. So what I've done, Doctor, is I have a demonstrative.

It's got a timeline at the bottom. Do you see that?

A. I do.

Q. So it's 8:00 o'clock at night. Now you wake up,

9:00 o'clock and so on, and it goes to 6 p.m. Do you see that?

A. I do.

Q. So what I have depicted is a zone player from the patent.

Do you see that?

A. I see that.

Q. And I marked it as Zone Player A.

A. I see that.

Q. And what I'm representing with these musical notes is that

the Zone Player A is operating -- or let me state it this

way -- that the Zone Player A is playing audio or music

individually. Do you understand that?

A. I do.

Q. So at 10:00 a.m., would you agree with me that

Zone Player A with the musical notes coming out of it, that

that is operating in standalone mode?

A. I think your assumption was -- you told me to assume that

to be the case, so the answer would be yes.

I'm sorry. If you didn't say it was operating in

standalone mode, you just said it was playing music, then I

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1 couldn't tell. There might be a speaker in another room that's
2 in sync -- operating in synchronization with this one, so I
3 just have to be clear.

4 Q. Let me make my question more clear.

5 Zone Player A is playing music individually. It's not
6 operating in a group. Are you with me?

7 A. Yes, sir.

8 Q. You would agree with me that Zone Player A when it's
9 playing music individually is operating in standalone mode;
10 correct?

11 A. Yes. If it's playing music by itself, I can use that to
12 determine that it's operating in standalone mode.

13 Q. Thank you.

14 Let's go to the next demonstrative, DDX4.5.

15 This time two hours later I have the same Zone Player A,
16 but it's not playing any music at all. Are you with me?

17 A. Yes.

18 Q. And it has not been grouped together with anything else.
19 Are you with me?

20 A. Yes.

21 Q. So --

22 A. Well, no, I'm not.

23 Q. Okay. Can you explain what you are missing?

24 A. Yes. You said "and it's not been grouped with anything
25 else." So, that question is vague whether you say it's in a

1 group that's been created or it's in a group that's been
2 invoked.

3 And so just saying it's in a group or not in a group
4 doesn't tell me whether it's in a group created or a group
5 invoked.

6 **Q.** I think that's something that I think would benefit the
7 jury.

8 Can you explain your understanding of what it means to be
9 in group mode versus invoking or invoking a group?

10 **A.** Yes. So the idea of the claims are that it separates this
11 idea of group creation from invocation. So you can create zone
12 scenes independently of whether or not they're actually
13 invoked.

14 So the invocation part, the activation is once it's been
15 created, you can transition to invoking or activating the
16 group. And that's where -- and I'm just -- I've got the '885.

17 It's operating in accordance with the given one of the
18 first and second predefined groupings of zone players. That's
19 what I've been calling group mode. So now it's grouped,
20 they're synchronized, they're ready to play back, and that's
21 when the group has been invoked and that's separate from the
22 creation part.

23 **Q.** Thank you.

24 So I think in your view there are three steps. There's
25 the creation of a group, one step; two is you invoke the group

1 where the group members are starting to coordinate with each
2 other; and then at a later point in time you can start to play
3 music or audio on that group in a synchronized fashion. Did I
4 get that right?

5 **A.** Yeah, I don't think that's accurate for steps 2 or 3.

6 **Q.** Okay. Let me ask it this way: Is it possible that you
7 could have, in your view, invocation of a group where the group
8 members are coordinating with each other but there is no sound
9 coming out of the group speakers?

10 **A.** Yes. They can be coordinating, preparing to play audio,
11 they're able to play audio, that synchronization has taken
12 place, but there isn't any audio currently playing for that
13 group.

14 **Q.** And based on your understanding, you could invoke a group,
15 grab lunch, come back two hours later, and then play music as a
16 group on those members; correct?

17 **A.** That's correct. The invocation part will do what the
18 claim says in terms of operating in accordance with the group
19 so the zone players are linked, they're synchronizing with each
20 other, and there isn't anything else that has to happen before
21 you hit "play."

22 **Q.** So what really matters, the test for knowing whether a
23 group has been invoked or not, is whether the group members are
24 coordinating with each other to be configured for synchronized
25 playback. Did I get that right?

1 **A.** That's a little vague. Because, for example, you can
2 start the process; for example, you can start to send some
3 timing messages; but until you kind of go into the phase where
4 you meet all of the words of kind of the green limitation, then
5 it's -- you're not fully invoked yet.

6 **Q.** Yes or no, sir? I could have coordination to form or
7 invoke a group, but I'm not playing music as a group. Is that
8 a true statement?

9 **A.** I can't answer that. The first part is too vague because
10 it doesn't get at the requirement of the claim. Sorry.

11 **Q.** Can I invoke a group and not play music at least? You
12 would agree with that?

13 **A.** Yes.

14 **Q.** Okay. So let's take a look at this demonstrative.

15 So with that understanding in mind, at 12:00 o'clock, that
16 Zone Player A is not playing music individually and it has not
17 been invoked as part of a group member. Are you with me?

18 **A.** Yes.

19 **Q.** Okay. What would you say at 12:00 o'clock is the state of
20 Zone Player A?

21 **A.** Because it's not in group mode, then it would be in
22 standalone mode.

23 **Q.** And then let's go to the next slide, DDX4.5.

24 Now, I have at 1:00 p.m., Zone A has been both added to
25 other members, B and C, to form a group and invocation of that

1 group has occurred so that there's coordination going on. Are
2 you with me?

3 **A.** I understand it's been invoked. I think, as I testified,
4 it's a little more than just starting the coordination; but I'm
5 going with invoked, the group's invoked.

6 **Q.** Okay. So I'll keep it really simple. At 1:00 p.m. the
7 Zone Player A has both been added to a group with Zone Player B
8 and C, and that group has been what you call invoked. Are you
9 with me?

10 **A.** Yes, sir.

11 **Q.** So at this point what would you say is the state of
12 Zone Player A?

13 **A.** It is in group mode. It is -- based on your assumptions,
14 it's doing the green part of the limitation. You're operating
15 in accordance with the first or second predefined grouping of
16 zone players.

17 **Q.** So at 10:00 o'clock it was in standalone mode based on my
18 assumptions; correct?

19 **A.** It was.

20 **Q.** At noon it is still in standalone mode based on my
21 assumptions; correct?

22 **A.** I believe that's correct.

23 **Q.** And at 1:00 o'clock it is in group mode based on my
24 assumptions; is that correct?

25 **A.** I believe that's correct.

1 Q. And then if we go to the next slide, DDX4.6.

2 3:00 o'clock, so two hours after I invoke the group, I
3 cause music to be played as a group at 3:00 o'clock. Are you
4 with me?

5 A. Yes.

6 Q. At that point you would say that it is operating in group
7 mode, correct, because music is coming out?

8 A. Not because music is coming out. Again, your question
9 assumes that it's because music is playing out that it's
10 operating in group mode. It's operating in group mode because
11 that's what you said is happening.

12 Q. But all I'm trying to establish is that when group members
13 are playing music together, that it's still operating in group
14 mode; correct?

15 A. It's operating in group mode and playing music if it meets
16 the requirement of the green group. So it's doing the
17 synchronization and everything that's required there.

18 Q. Okay. So it's your view, based on the testimony you gave
19 during your direct examination, that 10:00 o'clock,
20 12:00 o'clock standalone; correct?

21 A. Yes.

22 Q. 1:00 o'clock, 3:00 o'clock, it's in group mode based on my
23 assumptions; correct?

24 A. It's in group mode as required by the claim.

25 Q. Thank you.

1 All right. We'll come back to this later.

2 Let's take that down.

3 Now, you would agree with me that claim 1 of the '966
4 patent -- and let's put up claim 1 of the '966 patent --
5 there's additional language in claim 1 of the '966 patent that
6 does not appear in claim 1 of the '885 patent? Do you agree?

7 **A.** I do agree.

8 **Q.** So, for example, if I look at claim 1 based on the first
9 request little 3 -- if you can highlight that language --
10 "causing storage of the first zone scene." Do you see that?

11 **A.** I do see that.

12 **Q.** And you would agree with me that that is a limitation of
13 claim 1 of the '966 patent that is not present in claim 1 of
14 the '885 patent; correct?

15 **A.** That is not quite correct.

16 **Q.** Yes or no. Does claim 1 of the '885 patent require
17 storage of the first zone scene?

18 **A.** It does.

19 **Q.** So to you, based on your testimony here today, you believe
20 that claim 1 limitation, "causing storage of the first zone
21 scene" for the '966 patent, is also present in claim 1 of the
22 '885 patent?

23 **A.** Not the same requirement of the limitation, but both
24 include storage requirements.

25 **Q.** I'm asking you this particular one.

1 Do you see that this is based on first request, you do
2 three things? You cause creation of the first zone scene. Do
3 you see that?

4 **A.** I do.

5 **Q.** Second is you cause an indication of the first zone scene
6 to be transmitted to the first zone player. Do you see that?

7 **A.** I do.

8 **Q.** And, third, you cause storage of the first zone scene. Do
9 you see that?

10 **A.** I do see that.

11 **Q.** So creation is different than storage. You'd agree
12 according to this claim?

13 **A.** They are different actions. They can certainly be
14 related.

15 **Q.** Right. I'm not talking about relationships.

16 They're separate limitations, creation of the first zone
17 scene compared to the causing storage of the first zone scene.
18 You would agree with that?

19 **A.** They are separate limitations.

20 **Q.** And are you aware, sir, that Sonos itself has taken the
21 position in this case that causing storage of the first zone
22 scene is a separate limitation of claim 1 of the '966 patent
23 compared to what's required by the claim 1 language of the '885
24 patent?

25 **A.** I'm sorry. I don't know what that means.

1 Q. Have you personally ever taken the position in this case
2 that causing storage of the first zone scene is a limitation --
3 an additional limitation of the '966, claim 1, that is not
4 required by claim 1 of the '885 patent?

5 A. I'd have to give an explanation. There -- there are
6 different storing requirements between the '885 and the '966.
7 There's -- they're not exactly the same, but they have a
8 relationship to each other.

9 Q. So -- thank you.

10 So let me ask this question: The specific storage of the
11 first zone scene that is required for claim 1 of the '966
12 patent you agree is not required by claim 1 of the '885 patent;
13 correct?

14 A. That's hard to answer given the overlap between the two.

15 Q. I would like an answer if you can give it to me.

16 Yes or no. Is the specific little 3, causing storage of
17 the first scene -- zone scene in claim 1 of the '966 patent
18 also required by claim 1 of the '885 patent?

19 A. I'm not sure how to answer that. The best I can say is
20 there's overlap between them. I don't think they are identical
21 requirements, but there is overlap between them. That's the
22 best I can do.

23 Q. Can I practice claim 1 of the '885 patent and not practice
24 claim 1 of the '966 patent with respect to this limitation?

25 A. Okay, that helps.

1 The examples that I've seen, the answer would be no, and
2 the examples are the Sonos current system and the accused
3 Google products.

4 Whether there's some hypothetical system where there's
5 some daylight where you can meet the requirements of the '885
6 pre-saved as it relates to zone scene and not meet the '966
7 limitation, maybe there is. I'd have to give it some thought,
8 but not something specific comes to mind.

9 **Q.** So sitting here today, you are not telling this jury that
10 if I find all the elements of claim 1 of the '885 patent, that
11 you have necessarily found little 3 causing storage of the
12 first zone scene limitation of claim 1 of the '966 patent;
13 correct?

14 **A.** In the abstract, no; but with respect to the accused
15 products, yes.

16 **Q.** Now, it's true you wrote lots of reports in this case;
17 correct?

18 **A.** Yes, sir.

19 **Q.** And it's your -- in your reports you have stated that
20 there's a difference between storing something persistently and
21 storing something temporarily; correct?

22 **A.** I'd have to see the specific language. I don't recall
23 doing that kind of distinction between the two terms.

24 **Q.** I think you may have your opening report up there. If
25 not, can we get the opening report? I can display it on the

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1 screen as well if that would be helpful.

2 **A.** That would be helpful if --

3 **Q.** Thank you.

4 **MR. PAK:** Let's put up Dr. Almeroth's reports that he
5 wrote. This is November 30th, 2022.

6 **THE WITNESS:** You've got them. Can I get them if it's
7 not too much trouble's.

8 **MR. PAK:** Yes.

9 May I approach the witness, Your Honor?

10 **THE COURT:** You have to have weightlifters. Do you
11 see how big that is?

12 (Laughter)

13 **MR. PAK:** That's just one report.

14 **THE COURT:** That's just one. We need weightlifters in
15 this case in order to handle the evidence.

16 **THE WITNESS:** There's only six more, Your Honor.

17 **BY MR. PAK:**

18 **Q.** If we look at paragraph 117 of your October -- or
19 November 30th, 2022, report, when you were writing your report,
20 you were providing truthful opinions about the issues in this
21 case; correct?

22 **A.** Yes, sir.

23 **Q.** And you were given a chance to make any corrections to
24 your report; correct?

25 **A.** That's correct.

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1 Q. And you did not change this particular paragraph; correct?

2 A. I did not.

3 Q. So let's take a look at what you said in this expert
4 report on infringement issues talking about the prestoring or
5 predefined and pre-saved, and I'll read it into the record.

6 Dr. Almeroth, you wrote (as read):

7 "Third, the user created groups that are predefined
8 and pre-saved as part of the zone scenes are persistent,
9 which means that not only are they able to exist prior to
10 being activated but they also remain in existence after a
11 user chooses to uninvoke a previously invoked zone scene
12 and thereby deactivate the group."

13 Do you stand by that testimony?

14 A. Yes, I do.

15 Q. That's all I'm asking for now.

16 A. Just to be clear, this is in a section describing Sonos'
17 zone scene technology. So I am describing how the Sonos
18 technology works.

19 Q. Fair enough.

20 A. Okay. Thank you.

21 Q. "In contrast "-- let's put that still on there, if we can.
22 You said (as read):

23 "In contrast, an ad hoc group is temporary. It only
24 exists during the limited time that the group is activated
25 for playback; and once a user chooses to deactivate the

1 ad hoc group, it will be destroyed such that the user
2 cannot reuse the ad hoc group in the future."

3 Do you see that?

4 **A.** I do.

5 **Q.** Do you agree with that statement as well?

6 **A.** Yes, I do.

7 **Q.** And you've given similar opinions in other portions of
8 your infringement report about persistence; correct?

9 **A.** Consistent but I think in a different context; right? So
10 for about the accused products in characterizing how they
11 operate, I believe I have.

12 **Q.** So let me go back to the claim language again, and this is
13 claim 1 of the '966 patent.

14 And the reason why I'm back asking you about this language
15 "causing storage of the first zone scene," you understand that
16 it is Google's position and Dr. Schonfeld's position in this
17 case that this limitation 3, "causing storage of the first zone
18 scene," is not satisfied by any of the accused devices. Do you
19 understand that?

20 **A.** Yes, I understand that.

21 **Q.** That's why we're talking about this language.

22 All right. Is it your understanding of "causing storage
23 of the first zone scene," that that storage must be done in a
24 persistent manner?

25 **A.** I think -- it's hard to use that term to describe what the

1 claim requirement is. The paragraphs that you read from in the
2 report that use that term were describing the system not in the
3 context of the claim.

4 What the claim requires is that the group be stored from
5 the time that it's saved as part of pre-created -- or, no. I
6 said that yesterday -- not pre-created, but previous to
7 invocation past the time that the group is deactivated.

8 Now, you can call that persistent, it has to persist over
9 that period of time; but if it's a short period of time to meet
10 that requirement, then maybe you wouldn't call it persistent.

11 So generally I think it's accurate, that it has to persist
12 across that period of time from the time that it was created
13 because it has to exist when it's invoked and then it has to
14 exist after it's deactivated.

15 And so if you want to call -- if that is the definition of
16 "persistent" as it applies to the claim, then I would agree
17 with that.

18 **Q.** Where in the claim language does it talk about
19 deactivation?

20 **A.** It doesn't. But --

21 **Q.** So -- I'm just -- counsel can ask you questions. I want
22 to be mindful of my time.

23 So, Doctor, the claim does not talk about deactivation of
24 a zone scene with respect to the storage limitation of the '966
25 patent; correct?

1 **A.** It does not talk about deactivation.

2 **Q.** And you would agree with me that causing creation of the
3 first zone scene, the first limitation, will also require
4 temporarily saving in memory somewhere the zone scene
5 information; correct?

6 **A.** In most systems the creation will cause something to be
7 stored at the point of creation, but this limitation isn't
8 specifically limited to just that portion.

9 **Q.** And you would agree with me at least that in claim 1 of
10 the '966, creation of the first zone scene that might involve
11 temporary storage or saving of a zone scene is a different
12 limitation, different requirement, than causing storage of the
13 first zone scene; correct?

14 **A.** It is a different limitation.

15 **Q.** We already established that there's nothing in the claim
16 about deactivation of the zone scene; correct?

17 **A.** Not in claim 1 of the '966 patent.

18 **Q.** So tell me -- tell the jury, how would I know how long,
19 according to the claim language, I have to save the zone scene
20 before it becomes storage as opposed to creation.

21 **A.** Oh, absolutely. So think about it this way: The zone
22 scenes have to exist so that they can be invoked. If they're
23 deleted before they're invoked, then it doesn't really work.

24 The other thing is if you've created two zone scenes and
25 you've invoked one of them, before it's stopped, you have to

1 continue to keep track of that zone scene.

2 So it makes sense that you have to have something that's
3 stored about the zone scene through the time when it's no
4 longer needed. And the time when it's no longer needed would
5 be either when you use a different zone scene or after
6 deactivation because at that point you wouldn't need the zone
7 scene anymore.

8 So the concept of this claim is you can understand the
9 requirement -- the storage requirement has to exist through the
10 period where it's no longer used.

11 **Q.** Now, Doctor, you would agree with me there's nothing in
12 the claim language about how long the period of time has to be
13 between creation and invocation; correct?

14 **A.** Not a specific time. Just based on the logic that I just
15 described, that's how long it would have to be.

16 **Q.** And in any type of computer system there will be some time
17 or delay between when you create something and you invoke that
18 same thing; correct?

19 **A.** No, not necessarily. I can think of instances where the
20 creation and the invocation is what's called atomic. It
21 happens at the same time. I think one example was Party Mode
22 in the 2005 system. You're not keeping track of all the
23 players in the system. You press the button. It creates and
24 invokes at the same time.

25 **Q.** We're going to talk about Party Mode in detail when you're

1 back after Dr. Schonfeld testifies; but since you brought up
2 Party Mode, you agree, sir, that Party Mode was described by a
3 zone -- as a zone scene in Mr. Lambourne's documents that we
4 saw; correct?

5 **A.** Yes, you could create a zone scope that met the
6 requirements of a zone scene, a user could create it, select
7 all of the speakers, name it. So you could create a zone scene
8 called Party Mode, absolutely.

9 **Q.** Okay. Thank you.

10 Now going back to this language, if there happened to be
11 some amount of delay between creation and causing storage, any
12 amount of meaningful delay, you would agree with me that
13 causing creation and causing storage under your definition
14 would be satisfied; is that true?

15 **A.** I don't think that's right. I think your question
16 involves too many possible scenarios to say necessarily yes or
17 necessarily no.

18 **Q.** Well, let me give you an easy example.

19 If it took me one second between creation and invocation
20 of a group, according to you, that would mean there must
21 necessarily have been storage of the first zone scene; is that
22 fair?

23 **A.** That question is vague; right. There's -- there's
24 pre-saved as it relates to the '885 and '966 for what a zone
25 scene is. It has to be created and saved at that point.

1 And then causing storage as it relates to what happens in
2 relationship just to the '966 claim, they overlap so I'm not
3 sure what you're asking. I'm sorry.

4 **Q.** It's a very specific question.

5 If I had a one-second delay between when I created a zone
6 scene and I invoked that zone scene, under your view that you
7 just stated to the jury, there must have been storage of the
8 first zone scene as well; is that correct?

9 **A.** I'm sorry. Now I'm lost about in what system.

10 **Q.** I'm talking about the claim language, sir.

11 **A.** Okay.

12 **Q.** I'm looking at the claims. You told me that there's
13 nothing about deactivating the zone scene. You've also said
14 that there's no specific time period necessary for the storage.

15 Do you recall that testimony?

16 **A.** That's not quite what I said.

17 **Q.** Okay. Well, I don't see any numbers here in the claim
18 about you have to wait for a certain amount of time before it
19 meets the storage limitation. You would agree with that?

20 **A.** I agree not a specific time. I described the logic of
21 what the claim requires.

22 **Q.** That's right.

23 So, Doctor, what I'm asking you is a simple example. I
24 created a zone scene. One second later I invoked a zone scene.
25 Does that -- in that simple example, has there been storage of

1 that zone scene according to your understanding of claim 1 of
2 the '966 patent?

3 **A.** I would expect in a system where you're creating a group
4 and then you're invoking the group, there would be some kind of
5 storage of information related to the zone scene that had been
6 created.

7 **Q.** I'm asking you again. In my example, if there's a
8 one-second delay between creation of a zone scene and
9 invocation of a zone scene, does that mean because of that
10 one-second delay that there has been storage of that zone scene
11 as specified in claim 1 of the '966 patent?

12 **A.** I can't answer your question as you worded it because
13 you're -- you're not telling me what's stored or if you're
14 asking about the creation of the group as it relates to zone
15 scene and pre-saved. I'm having a hard time following your --
16 your hypothetical.

17 **Q.** I'll run it one more time and if you can't answer it, it
18 might be my fault.

19 I'm asking a simple question. I took a zone scene. I
20 created it as required by 1. Then one second later I invoked
21 that zone scene, that same zone scene.

22 Is it your opinion under your view that there must have
23 been storage of that zone scene as required in little 3 of
24 claim 1 of the '966 patent?

25 **A.** Oh, okay. So now I think I understand.

1 So first there was storage related to the creation. So
2 that's the pre-saved part. So you're pre-saving before
3 invocation.

4 With respect to this claim requirement for causing
5 storage, it depends on what happens after invocation because
6 the causing storage requirement relates to having the zone
7 scene information exist through invocation.

8 So, yes, there would be storage, but it wouldn't
9 necessarily be sufficient to meet the limitation until you told
10 me the rest of what happened.

11 **Q.** Thank you.

12 **A.** Okay.

13 **Q.** That's what I wanted to get at, Doctor.

14 **A.** Okay.

15 **Q.** So just because I stored a zone scene for creating it
16 doesn't mean that I've necessarily satisfied the causing
17 storage of the first zone scene as required by claim 1 of the
18 '966 patent. Would you agree?

19 **A.** While the two are related, I would hope to use more
20 information to finally make a determination whether the
21 limitation was met.

22 **Q.** You are not telling this jury that the -- whatever storage
23 may be happening because of the creation of the zone scene also
24 automatically satisfies little 3, "causing storage of the first
25 zone scene," of claim 1 of the '966 patent; correct?

1 A. Yeah, not -- not necessarily happens hypothetically.

2 That's the way the Google system operates, though.

3 Q. I'm going to talk about -- you understand you have to
4 apply the claim language consistently for both infringement and
5 prior art; correct?

6 A. Yes.

7 Q. And you understand if these claims are invalidated under
8 your theory, then there is no infringement? Do you understand
9 that?

10 A. I understand that.

11 Q. So I'm asking you these questions to understand what your
12 view of the claim is so we can assess it consistently for both
13 infringement and invalidity of these claims. Do you understand
14 that?

15 A. I do understand that.

16 Q. And you're not changing your views today and come up with
17 a different view when you're up here to talk about prior art
18 issues; correct?

19 A. I will not be doing that.

20 Q. All right. So a few more topics here.

21 Let's talk about the Google Home app. The Home app can do
22 many, many different things. Do you agree?

23 A. Yes, I agree.

24 Q. And the Home app can control many different types of
25 devices; correct?

1 A. It can.

2 Q. And there are probably thousands of uses and hundreds of
3 devices that the Home app can work with which are not covered
4 by these claims. Do you agree?

5 A. Their use would not be what meets the limitations; but,
6 again, you have the Google Home app on the device. That's what
7 infringes.

8 Q. Right. So what I'm -- I'm just getting at this simple
9 point.

10 There are lots of uses and functions and code that sits in
11 Home app that have nothing to do with this particular feature
12 of creating multiple overlapping speaker groups or zone scenes
13 while operating in a standalone mode. Do you agree?

14 A. Close but not entirely.

15 Q. There are lots of features and code in the Home app that
16 have nothing to do with this particular case involving these
17 particular claims. You would agree?

18 A. My hesitation is "nothing to do." I can explain why.

19 THE COURT: Well, what is your hesitation?

20 THE WITNESS: Well, my hesitation is that the
21 protocols, the messages that get sent back and forth, are used
22 in a lot of different kinds of apps. So some of the underlying
23 technology that's used in what would seem like different
24 devices are still used. So it's -- Mr. Pak saying they're not
25 related at all, there is some relationship there.

1 **BY MR. PAK:**

2 **Q.** Let me clarify my question.

3 **A.** Okay.

4 **Q.** There are many, many noninfringing uses -- uses not
5 capability -- uses of the Home app, you would agree, with
6 respect to these two particular patents?

7 **A.** I disagree.

8 **Q.** So if I use my Home app to turn on a lightbulb, is it your
9 contention that that use infringes any of these two patents?

10 **A.** No. Remember, infringement happens when the app is
11 installed on the device.

12 So the only scenario is --

13 **THE COURT:** Now, you keep saying that, but I'm going
14 to instruct the jury on this general problem. And I appreciate
15 that you're saying that merely having it on your app and never
16 using it is infringing. I'm not sure that is correct and maybe
17 it is. We're going to -- but that's your theory and that's
18 what the jury is hearing, but I need to put out a caveat.

19 That may not be correct. I will tell you at the end
20 whether that's correct or not.

21 Okay. But with that assumption, go ahead with your
22 explanation.

23 **THE WITNESS:** Yes. I think it's my understanding of
24 infringement happens when you have the app installed on the
25 controller, and I -- if you instruct the jury differently, I

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1 understand, but that's what I understand.

2 **BY MR. PAK:**

3 **Q.** Well, let me ask it in a different way.

4 If I took out all of the code, that would be -- let me
5 ask --

6 **THE COURT:** Can I ask the question I think you're
7 getting at?

8 **MR. PAK:** Yeah.

9 **THE COURT:** I don't have one of these Google phones.
10 I have an Apple phone.

11 On what I think is the Home app, it has a flashlight.

12 **THE WITNESS:** Yes.

13 **THE COURT:** It has a magnifying glass. And under your
14 theory, you're saying those infringe. Those infringe these
15 very patents because if I happen to have this on my -- what's
16 it called? -- the Google Home app? What's it called again?
17 The --

18 **THE WITNESS:** Google Home app.

19 **THE COURT:** Yeah. If I had that on my phone and I
20 was -- and -- then the flashlight and the spotlight would
21 somehow infringe, and I just cannot see that.

22 So I want to give you a chance. I don't think you really
23 mean that, but that's the way it's coming across. So please
24 clarify.

25 What he's trying to get at is: These phones have

1 thousands and thousands of uses, most of which -- the vast
2 majority of which have nothing to do with music. And don't you
3 agree that that's true, that these phones have -- well before
4 these patents ever came along had thousands of uses?

5 **THE WITNESS:** I do. Can I explain?

6 **THE COURT:** Yeah. I want you to. Please.

7 **THE WITNESS:** Yeah, so the -- the technical importance
8 of the invention is when you have that source code and that
9 capability in the app on the phone, that's what creates the
10 infringement.

11 The fact that your phone can do other things, it certainly
12 can; but having the technology of the patent able to operate on
13 the phone and have instructions to perform the claims is what
14 the invention is.

15 And so the -- the importance -- and I don't want to say
16 "value" because I'm not offering those kinds of opinions -- but
17 just having the app on the phone and its capability is what
18 creates the importance and the availability of the technology
19 for use.

20 But I agree; if you turn on your flashlight, that's not
21 related to, you know, the importance of this particular
22 technology.

23 **BY MR. PAK:**

24 **Q.** Let's talk about importance.

25 You gave opinions about technical importance of this

1 particular feature covered by these two patents; correct?

2 **A.** Yes.

3 **Q.** You understand that, it doesn't have a date on there yet,
4 but December 2005 is when Mr. Lambourne says he first came up
5 with the ideas that led to these patents; correct?

6 **A.** That's the conception date that we're using. I think the
7 testimony was he was working on this months and months before
8 that.

9 **Q.** And you know -- and I -- we have the date here the
10 provisional application that was filed. That's not the date
11 that the claims issued for the '885 and '966 patents; correct?

12 **A.** That's correct.

13 **Q.** The claims issued way over here in 2020 for these two
14 patents; correct?

15 **A.** I believe one was 2019 and '966 was 2019 and the '885 was
16 2020.

17 **Q.** And you were here when Mr. Millington said that even Sonos
18 didn't release any feature for their products that practice
19 these claims until 2020; correct?

20 **A.** That's correct.

21 **Q.** So you're saying it's technically important, it's
22 foundational, yet Sonos itself took 15 years to implement the
23 zone scene's technology covered by these two patents. Do you
24 agree?

25 **A.** I do, and I think there were good reasons for that.

1 Q. So in between Sonos had hundreds of features that they
2 released beginning with their Sonos 2005 prior art system. Do
3 you agree?

4 A. They did. I think that's right.

5 Q. They changed icons. They added more playlists. They
6 increased the number of songs you can store. They integrated
7 with different types of services, music services. They
8 included a voice-activation feature. They did all of these
9 things and sold hundreds of thousands of speakers for 15 years
10 without ever having the benefit of these two patents. You
11 would agree?

12 A. I would agree because there wasn't the hardware capability
13 needed for implementing these patents until S2 came out.

14 Q. Are you -- we'll get to -- we'll get to the prior art,
15 Doctor, but you would agree at least Sonos had all of these
16 features and product models in the market for roughly 15 years
17 before they decided to put this feature, the patented feature,
18 into their products. Do you agree?

19 A. No, that's not right. Not all of the devices were
20 available. In fact, that was the point. Until S2 came out,
21 there wasn't the hardware and the memory to support the storage
22 of these zone scenes.

23 Q. But, Doctor, another part of that is interesting to me is
24 but Google released the accused grouping technology in the 2015
25 time period; correct?

1 A. That's correct.

2 Q. So Google had its accused technology five years before
3 Sonos. Are you telling this jury that there was absolutely no
4 demand for the technology or there was no available computing
5 components that were available to implement the zone scenes
6 technology for 15 years? Is that what you're telling this
7 jury?

8 A. There were about three questions in that.

9 Q. Sorry.

10 Are you telling this jury that computers weren't smart
11 enough for 15 years to implement the zone scenes technology at
12 issue in this case?

13 A. No. It was a hardware issue that Sonos had to deal with,
14 specifically to what would go into their products.

15 Q. So it was a Sonos hardware issue; right?

16 A. It was, to my understanding.

17 Q. Okay. But Google didn't have any hardware issues because
18 they implemented the accused technology in 2015; correct?

19 A. I can't say that means they had no hardware issues, but my
20 understanding is they did commercialize it in 2015.

21 Q. There certainly must have been some -- some interest in
22 the future or some reason why they introduced it in 2015;
23 correct? Are you telling this jury that the demand for the
24 zone scenes technology all of the sudden materialized in 2020?

25 A. There were two questions there. If you're asking me about

1 what Google was doing in 2015 --

2 Q. Let's just focus on Sonos.

3 A. Okay.

4 Q. Are you saying that 2020 Sonos releases the zone scene
5 feature because all of the sudden there was market demand for
6 that feature in 2020?

7 A. No, that's not my understanding as to what the genesis was
8 for why it took that long.

9 Q. Okay. Now, your opinions in this case are based on review
10 of Google source code; correct?

11 A. Yes.

12 Q. You didn't just rely on observing the Google products in
13 operation; correct?

14 A. That's correct.

15 Q. Because, as you talked to us before, just because a
16 speaker is not playing music even when it's plugged in, you
17 can't tell from that behavior whether it's operating in
18 standalone mode or group mode; correct?

19 A. Sometimes you can't tell just looking at the speaker.

20 Q. And, in fact, you did analyze the Google source code to
21 form your infringement opinions in this case; correct?

22 A. I did.

23 Q. You also looked at the source code for the prior art Sonos
24 2005 system as well; correct?

25 A. I -- I don't remember. If it was available, I looked at

1 it.

2 Q. Well, one thing that is not in the patents at issue in
3 this case is any source code; correct?

4 A. Not source code instructions but algorithms.

5 Q. And you understand that Mr. Lambourne is not an engineer,
6 he didn't write any code; correct?

7 A. I think that statement is a little bit vague. I think my
8 recollection was you asked him if he wrote any code for the
9 Sonos products. I believe I heard him say that he did not, but
10 that doesn't mean he didn't write some code for something.

11 Q. Fair enough. But --

12 THE COURT: I don't -- you've said now several times
13 that the patent discloses algorithms. I wish you would give
14 some examples of the algorithms so we can have in mind what you
15 mean by algorithm.

16 THE WITNESS: I think Figure 6 is a good example of an
17 algorithm. It shows you the set of steps to go through.
18 Without giving the actual instructions, following that
19 algorithm, a person could program that algorithm and generate
20 the actual instruction.

21 THE COURT: All right. Thank you.

22 Next question.

23 BY MR. PAK:

24 Q. Thank you.

25 But you -- again, going back to the source code issue, you

1 understand that source code was not something that was before
2 the Patent Office; correct? The Sonos source code was not
3 before the Patent Office. Do you understand that?

4 **A.** That's correct. It was just the functionality of what the
5 source code implemented.

6 **Q.** And we went through some of the systems and other things
7 as part of the prosecution history.

8 You understand that none of the source code for any prior
9 art systems was before the Patent Office; correct?

10 **A.** I believe there wasn't source code in the Patent Office.
11 Just the functionality of the system was through manuals and
12 documentation.

13 **Q.** Thank you.

14 And the last topic is IFTTT.

15 You analyzed that app to form some technical opinions to
16 help Sonos' damages expert; correct?

17 **A.** Yes.

18 **Q.** Just so I understand what you did, you purchased a pro
19 version of this app; is that correct?

20 **A.** I did.

21 **Q.** And by purchasing the pro version, you were able to use
22 two little applets that were part of the IFTTT app; is that
23 correct?

24 **A.** Not quite.

25 **Q.** Okay. What are the two components that you used from

1 IFTTT?

2 **A.** Right, the pro version allowed two actions; if this, then
3 that and this other thing.

4 **Q.** Thank you.

5 **A.** So the free version was just one that, the pro version was
6 two or more.

7 **Q.** So the -- the pro version that you purchased and used, if
8 this and that, you could literally put anything in this and
9 anything in that as long as it was supported by the software;
10 correct?

11 **A.** As long as it was supported by the software.

12 **Q.** So I could put in if 8:00 a.m., then turn on the lights
13 and turn off the thermometer, the heat control? I could do
14 that if they were supported?

15 **A.** Yes.

16 **Q.** I could come up with probably millions of uses for IFTTT
17 using the pro version if this and that; correct?

18 **A.** Using that style, you could use it in lots of different
19 ways, certainly millions of different ways, and I was focused
20 on showing the technique generally as to the app and how it was
21 technically comparable.

22 **Q.** But the specific way you used it to create the experiment,
23 that was not something that was built into the IFTTT app;
24 correct?

25 **A.** It was. The mechanism of if this, then that certainly

1 existed.

2 Q. Well, you were the one who filled in the this and the
3 that; correct?

4 A. I did as an example.

5 Q. So the IFTTT app when you buy it in pro version doesn't
6 fill in this and that. You fill that in to do your experiment;
7 correct?

8 A. Right. It was just simple as clicking three buttons, and
9 I was done.

10 Q. And what you actually did, sir -- you would agree with me
11 that just because I have two speakers playing music
12 individually at the same time, so if I took two speakers and I
13 happened to push them with the same song at the same time,
14 that's not operating in group mode; correct?

15 A. Not according to the claim unless you have synchronization
16 built into it.

17 Q. And you and I went through this all morning.
18 Synchronization is an important part you think of the claim
19 language and the invention; correct?

20 A. It's certainly a necessary part. It is important along
21 with all of the other limitations.

22 Q. And what you did in your experiment, sir, was you set up
23 speakers to play in individual mode with the same songs, you
24 paused them, and then you did the if this and that statement to
25 resume playback around the same time. That's what you did;

ALMEROTH - CROSS / PAK

1 right?

2 A. That's what I did.

3 Q. There was no group coordination there in your experiment;
4 correct?

5 A. No, not specifically as required by claims; but from the
6 test of technical comparability, certainly there was.

7 Q. There wasn't even group mode in any of your experiments
8 according to how you have defined group mode for us here today;
9 correct?

10 A. No, I don't believe there was, but --

11 Q. That's right.

12 A. -- I still looked at the comparability and decided there
13 was.

14 Q. So there's no synchronization in your experiment across --

15 THE COURT: Wait. He didn't -- was there -- was there
16 synchronization, meaning did the music play perfectly in those
17 two speakers?

18 THE WITNESS: No, they did not.

19 THE COURT: Were they out of sync?

20 THE WITNESS: They could be made to be out of sync.
21 There wasn't the kind of synchronization required by the
22 claims.

23 BY MR. PAK:

24 Q. Yeah, just to clarify, there was no synchronization at
25 all. I mean, what you did is I had two speakers, I loaded them

ALMEROTH - REDIRECT / SHEA

1 with the same song on both of them; and instead of manually
2 pushing "play" at the same time, you had an app that just said
3 "play." So it sounded initially like two songs -- one song was
4 playing on two speakers, but the system wasn't coordinating
5 anything to ensure synchronicity; correct?

6 **A.** Not quite. You were playing them resuming them at the
7 same time. It's not the exact type of synchronization that's
8 described in the claim.

9 **Q.** So you know what synchronization is. Synchronization
10 isn't just starting at the right time or the same time. You
11 have to keep them synchronized. You have to send messages or
12 use a clock in the system or you have to send pat messages
13 around.

14 None of that was in the experiment that you did with
15 IFTTT; correct?

16 **A.** That's correct.

17 **Q.** Okay.

18 **MR. PAK:** All right. I think I can pass the witness,
19 Your Honor.

20 **THE COURT:** You what?

21 **MR. PAK:** I can pass the witness.

22 **THE COURT:** All right. Okay. Thank you.

23 **REDIRECT EXAMINATION**

24 **BY MR. SHEA:**

25 **Q.** Hello again, Dr. Almeroth.

ALMEROOTH - REDIRECT / SHEA

1 **A.** Good afternoon.

2 **Q.** It's been a little while. Good to talk with you again.

3 I want to just pick up on a few quick things there on that
4 IFTTT issue, Dr. Almeroth.

5 **A.** Yes.

6 **Q.** Just to clarify, does IFTTT provide the Sonos and Spotify
7 actions for the user?

8 **A.** Yes, it does. Those exist so the "that" that you have to
9 select is already available in IFTTT.

10 **Q.** And I think you may have said this earlier, but how would
11 you characterize the user experience for building those
12 applets?

13 **A.** It's very simple. I mean, it's literally three steps.
14 You select the if, you select the that, and then you name it.
15 Actually, four. You have to save it.

16 **Q.** Mr. Pak also asked you a couple questions about -- or at
17 least you had an exchange about this S2 app, and you mentioned
18 some of these hardware problems.

19 Can you explain that a little bit better for us?

20 **A.** Yes. So as part of Sonos' evolution of its products is
21 they went from the early zone players -- I think there were
22 examples shown earlier -- to more of these kinds of models of
23 products.

24 In order to implement the zone scene technology, it
25 required more storage because it had to store however many zone

ALMEROOTH - REDIRECT / SHEA

1 scenes would exist, and then it also had to store the
2 programming instructions to make that happen.

3 And so the point that I was making is, that kind of
4 capability as part of Sonos' hardware development effort didn't
5 exist until S2, and so there wasn't really an opportunity to
6 deploy that kind of functionality until S2, the next
7 generations of speakers, existed.

8 **Q.** Thank you.

9 So I want to talk a little bit more about the claims and
10 some of your interpretation of those claims.

11 So maybe we can pull your demonstrative deck back up.

12 **MR. SHEA:** Mr. Jay, can we do that? Great.

13 **BY MR. SHEA:**

14 **Q.** So, first of all, Mr. Pak asked you a number of questions
15 about this storage idea. Do you remember that, Dr. Almeroth?

16 **A.** Yes, I do.

17 **MR. SHEA:** So, first of all, can we go to Slide 25 of
18 the demonstrative presentation?

19 **BY MR. SHEA:**

20 **Q.** And, Dr. Almeroth, can you explain for us again, what is
21 the agreed interpretation of the term "zone scene" as you
22 currently understand it?

23 **A.** That's a previously saved grouping of zone players
24 according to a common theme.

25 **Q.** And then can we turn to the 9 -- claim 1 of the '966

ALMEROTH - REDIRECT / SHEA

1 patent, Dr. Almeroth? I'm sorry. I don't have an exact
2 demonstrative number for you.

3 **A.** 39 will work.

4 **Q.** Okay. Let's do that.

5 So this is the '966. And then I know we also talked about
6 this storing -- this causing storage requirement. Can you tell
7 us where that is?

8 **A.** That is in 1.6 and in 1.8.

9 **Q.** So Mr. Pak asked you about this term "persistent." Just
10 as a starting point, is that -- do you see that anywhere here?

11 **A.** No. That word doesn't occur in the claim language.

12 **Q.** And what is actually required by the claim language?

13 **A.** What's actually required by the claim language, you talked
14 about the construction so that has pre-saved, so that's before
15 invocation; and it has to exist from the time that it's created
16 until after the time that it is no longer invoked.

17 **Q.** And have -- this term "persistent," is there any real
18 dispute that Google saves persistently its speaker groups?

19 **A.** No, there shouldn't be. In fact, Mr. Mackay exactly
20 testified that it persistently stores.

21 **Q.** So maybe we can pull that up.

22 **MR. SHEA:** Mr. Jay, can we go back -- and we looked at
23 this earlier -- to Mr. Mackay's testimony, and I think it's on
24 page 117 of Volume 1, line 17.

25 (Pause in proceedings.)

ALMEROOTH - REDIRECT / SHEA

1 BY MR. SHEA:

2 Q. So, Dr. Almeroth, can you talk us through this again?

3 A. Yes. I'm not going to reread the question. I already
4 read it.

5 For Mr. Mackay's answer here he says (as read):

6 "So it's -- I would characterize it as a static group
7 is something that the user configures and it's saved
8 persistently."

9 The "it" that he's referring to here is the Google system.

10 Q. So Google speaker groups are saved persistently; right?

11 A. They are. That's what his testimony was.

12 Q. So do you understand what all the focus was on that term
13 "persistently"?

14 A. I -- I think maybe Google is trying to say that
15 persistently requires a type of memory, like a nonvolatile
16 memory, that has to exist after it's turned off; and that's --
17 that's not what "persistently" means in this context, and it's
18 also not even what -- a requirement in the claim.

19 Q. And, again, Mr. Mackay seems to be saying it is saved
20 persistently?

21 A. It's certainly saved persistently, and using testimony
22 like this I was able to confirm that the requirements of the
23 claim were met.

24 Q. So, you know, one other thing I wanted to get on the same
25 page on, Dr. Almeroth, is Mr. Pak used a lot of different

ALMEROOTH - REDIRECT / SHEA

1 phrasings around what it means to be in a group and not in a
2 group, and we talked about group mode and we talked about
3 adding -- added to a group.

4 I want to -- first and foremost, does adding a player to a
5 group alone mean that it is in grouped mode?

6 **A.** No, it doesn't. That's just the first phase. That's
7 creation. It's not about invocation. So just adding someone
8 to a group is about creation.

9 **Q.** And, Dr. Almeroth, when -- to just refresh us, when you
10 are in group mode, what does that mean?

11 **A.** When you're in group mode, you have to look at the last
12 part of the limitation.

13 So, maybe, Mr. Jay, could you put up PDX2.16?

14 And so it says (as read):

15 "transition from operating and standalone mode to
16 operating in accordance with the first defined grouping of
17 zone players such that the first zone player configured to
18 coordinate with at least the second zone player to output
19 media in synchrony with output of media by at least the
20 second zone player."

21 It's talking about building the synchronization so it's
22 ready to output media, and that's what I'm calling group mode
23 in the context of these two patents. The '885 patent has a
24 similar requirement.

25 **Q.** So I want to ask you a little bit more about that

ALMEROTH - REDIRECT / SHEA

1 because -- and specifically in the context of the Google
2 products, which is something I don't think Mr. Pak asked you
3 about at all really. We didn't really talk about the products
4 that infringe here, but I'd like to do that.

5 So can you explain to us what action causes the accused
6 Google products and the ones that are accused of infringement
7 to go into group mode?

8 **A.** That's where you would do a launch, and the launch would
9 invoke the group in the Google system.

10 **Q.** And prior to doing that, prior to launch, would Google
11 players that have only been added to the group be configured to
12 coordinate to output media in synchrony?

13 **A.** No. And just because, again, they've been added to the
14 group, they wouldn't switch until the group was invoked.

15 **Q.** So when do they actually become configured to output media
16 in synchrony?

17 **A.** With the launch when they're -- when the group is invoked.

18 **Q.** So I want to look at some testimony from Mr. Mackay on
19 this point as well, Dr. Almeroth.

20 It's something we didn't look at earlier, but we're going
21 to put it up now.

22 **MR. SHEA:** So, Mr. Jay, could I get Volume 2 of
23 Mr. Mackay's testimony? And we're going to go to page 39,
24 line 12.

25 (Pause in proceedings.)

1 **BY MR. SHEA:**

2 **Q.** So, Dr. Almeroth, can you tell us what Mr. Mackay is
3 talking about here?

4 **A.** Sure. Let me read the question and answer (as read):

5 "And then once the group is launched, do I understand
6 correctly, then, the speakers, the Google players in that
7 launched group, will be at that point configured for a
8 grouped playback?"

9 And Mr. Mackay said (as read):

10 "So I would say that once a device receives a launch
11 command from the group leader, then -- then it lunches the
12 multizone follower app, then it's taking part in group
13 playback."

14 **Q.** So what does that tell us?

15 **A.** That tells us that based on the launch, it transitions to
16 the requirements of the claim and being in what I've called
17 group mode, which is configured to play back audio in group --
18 in the group.

19 **Q.** And is this some of the testimony that you relied on in
20 formulating your opinions regarding infringement of the '966
21 patent?

22 **A.** Yes, it was.

23 **Q.** And, again, that functionality was also the same
24 functionality that was in the products found to have infringed
25 the '885 patent?

ALMEROOTH - REDIRECT / SHEA

1 **A.** That's correct. That was not something that was changed,
2 and so it's actually in both versions.

3 **Q.** You know, Dr. Almeroth, I heard a lot of talk about
4 whether these patents have source code right there in them. I
5 want to ask you about that because that was -- that sounded a
6 little strange to me.

7 First and foremost, how many patents have you reviewed
8 over the course of your career?

9 **A.** Certainly hundreds, maybe into the thousands.

10 **Q.** How many times do you see a company put their confidential
11 source code into a patent?

12 **A.** Almost never. Maybe there was one instance where they
13 included it as an appendix.

14 **Q.** And why is that?

15 **A.** Because usually you can describe the patent and the
16 invention at a level where you can describe the steps of what's
17 required.

18 **Q.** Dr. Almeroth, is there also something to do with the
19 confidential nature of that source code?

20 **A.** There is. Once you send it to the Patent Office, then
21 it's now in the public; and so if the Patent Office doesn't
22 grant you a patent, then you've released the source code for
23 your product and not been protected by a patent.

24 **Q.** Right. It's your understanding that 18 months after a
25 patent application is filed, it becomes published to the world;

ALMEROTH - REDIRECT / SHEA

1 correct?

2 **A.** That's correct.

3 **Q.** So if you were to include your source code in a patent
4 application, what would happen?

5 **A.** If you weren't granted the patent, then the world would
6 still know about your secret source code.

7 **Q.** And do companies like to publish their confidential source
8 code to the world, Dr. Almeroth?

9 **A.** No. You can see when we got to talking about Google
10 source code, we had to use different procedures just to be able
11 to show it in the courtroom.

12 **Q.** Right. That's right, Dr. Almeroth.

13 I mean, was I even able to have an electronic copy of this
14 source code here?

15 **A.** No, you can't.

16 **Q.** Do you know how old this source code is?

17 **A.** It's at least a couple years old.

18 **Q.** Right. But now it sounds like they -- there was some
19 expectation that a company who has newly developed source code
20 filing a patent for the first time, that they should just give
21 that up to the public; is that what you heard?

22 **A.** That's correct. There's some implication that algorithms
23 aren't good enough, that you need actual instructions.

24 **Q.** What are your thoughts on that?

25 **A.** That's not what I understand patents to have to disclose

ALMEROTH - REDIRECT / SHEA

1 in order to be able to teach someone of skill in the art what
2 the invention is about.

3 **Q.** So I want to go back. You know, Mr. Pak asked you a
4 little bit about some of those documents you and I looked at
5 together related to your opinions on technical importance.

6 **A.** Yes.

7 **Q.** So maybe we can --

8 **MR. SHEA:** First of all, could we pull back up TX6612?

9 **BY MR. SHEA:**

10 **Q.** Can you remind me again what this document is,
11 Dr. Almeroth?

12 **A.** Yes. This was a posting by Google to its blog describing
13 some of the features of the multiroom audio.

14 **MR. SHEA:** And could we go -- I think it's the last
15 page of this document, Mr. Jay?

16 One back.

17 **BY MR. SHEA:**

18 **Q.** What do you see there in the last portion of the text?

19 **A.** It says (as read):

20 "Without pairing you can sync your home speakers
21 together and invite your friends to be the DJ."

22 **Q.** Ah, sorry. That's my fault.

23 Actually I was just looking for who posted this.

24 **A.** Oh, I'm sorry.

25 Mr. Shekel, Tomer Shekel.

ALMEROTH - REDIRECT / SHEA

1 Q. And, again, can you remind us who Mr. Shekel is?

2 A. He was the product manager for the Google Home app.

3 Q. And I think I heard -- first and foremost, does the fact
4 that he's no longer the product manager of the Home app impact
5 your opinions in any way?

6 A. No. I think his testimony applies especially to what the
7 redesign is and the impact that it has. I think his testimony
8 was exactly about the concept of that redesign and that NIA.

9 Q. And I think Mr. Pak -- I heard Mr. Pak criticize the fact
10 that this document doesn't say anything about overlapping
11 groups. Did you hear that?

12 A. Yes.

13 Q. So -- but when Mr. Shekel was asked about whether or not
14 overlapping groups was an important feature, do you recall what
15 he said?

16 A. He said it was. He said if you didn't have overlapping
17 groups, the experience would not be good, even calling it poor.

18 Q. Let's pull that back up. We looked at it earlier, but I
19 want to look at it again.

20 MR. SHEA: This is going to be Mr. Shekel's deposition
21 testimony, and this is going to be page 109, and I want to
22 start at line 9 through 11.

23 So could we go a little higher there?

24 Yes. So sorry, what I should say is, yeah, 109, line 11
25 to start.

ALMEROTH - REDIRECT / SHEA

1 **BY MR. SHEA:**

2 **Q.** Can you again tell us what this says, Dr. Almeroth?

3 **A.** Yes. This is -- this is where he was asked about the idea
4 of allowing a speaker to only be in one group at a time, and
5 that's where he said he thought it was a poor user experience.

6 **Q.** And then -- and then again on line 20, what do we see
7 there?

8 **A.** He was asked (as read):

9 "You know, in order to implement that, if you tried
10 to add the same speaker to a subsequent group, you would
11 have to kick that speaker out of the first group -- out of
12 the prior group?"

13 And he says (as read):

14 "That would not be a good experience either."

15 **Q.** Okay. So what does this tell us about Google's view of
16 whether overlapping groups was an important aspect of this?

17 **A.** Yeah, you don't have to take my opinion for it. It's
18 right there in the testimony from Google employees.

19 (Pause in proceedings.)

20 **BY MR. SHEA:**

21 **Q.** So I also think I heard Mr. Pak question you to some
22 extent about the relationship between some of Mr. Shekel's
23 testimony and the current redesign, and I wanted to pull
24 Mr. Shekel's testimony back up on that as well.

25 **MR. SHEA:** So, Mr. Jay, can we go back to Mr. Shekel?

ALMEROTH - REDIRECT / SHEA

1 And this is going to be page 99, line 9.

2 (Pause in proceedings.)

3 **BY MR. SHEA:**

4 **Q.** So, again, can you remind us what we're looking at here,
5 Dr. Almeroth?

6 **A.** Yes. This is the idea of the redesign where in at least
7 one scenario, the one scenario where the behavior is different
8 from the redesign to the prior versions, there's another
9 scenario where it doesn't change at all.

10 But even for this scenario, it says that the player in
11 standalone mode is playing music and the redesign is to stop
12 that device from a playing audio.

13 And Mr. Shekel was asked specifically about that kind of
14 scenario (as read):

15 "Is it an important feature for the music playback to
16 not be disturbed while you set up new groups?"

17 And Mr. Shekel said (as read):

18 "If by setting up a group you'll now be stopping the
19 music a person is playing, listening to, that would not be
20 a great experience for the user."

21 **Q.** So isn't that the same thing they're saying is what's the
22 key aspect of their new design?

23 **A.** That's correct. They tried to implement as the redesign
24 the exact thing Mr. Shekel said would not be a great experience
25 for the user.

ALMEROOTH - REDIRECT / SHEA

1 Q. Does the fact that Mr. Shekel said -- was the product
2 manager before they made that change have an impact on that?

3 A. No.

4 Q. So let's look at that.

5 MR. SHEA: Mr. Jay, can we actually pull up Slide 9 of
6 Google's opening presentation again?

7 (Pause in proceedings.)

8 BY MR. SHEA:

9 Q. So what are we looking at here, Dr. Almeroth?

10 A. That is the description Mr. Pak gave for exactly what the
11 redesign is and what the first NIA is and what Mr. Shekel said
12 would not be a great user experience.

13 Q. Okay. Good.

14 So, again, going back to just refocusing on the question
15 of infringement, other than asking you about storage, did you
16 hear Mr. Pak ask you about any questions related to whether or
17 not the accused products are infringing?

18 A. Not for the '966 patent.

19 Q. And then how about for the '885 patent?

20 A. No, not for the '885.

21 Q. So then -- sorry. I have a lot of notes here. I just
22 want to make sure that I'm covering everything.

23 (Pause in proceedings.)

24 BY MR. SHEA:

25 Q. So, you know, one other thing, Dr. Almeroth, I wanted to

PROCEEDINGS

1 get into with you was this question of the file histories and
2 the examiner's statements.

3 **A.** Okay.

4 **Q.** So I think in order to do that, we're going to have to
5 pull up the file -- the statements again to take a look at
6 those.

7 **THE COURT:** One minute and a half. It's --

8 **MR. SHEA:** This is probably going to take a little
9 longer than that, Your Honor. Would it make sense to just
10 start with this tomorrow then?

11 **THE COURT:** We'll stop now then.

12 **MR. SHEA:** Okay.

13 **THE COURT:** Remember the admonition. Have a safe
14 journey home. Thank you for your careful attention. See you
15 in the morning at the normal time.

16 **THE CLERK:** All rise for the jury.

17 (Proceedings were heard outside the presence of the jury:)

18 **THE COURT:** Have a seat.

19 Witness, you can step down too.

20 **THE WITNESS:** Thank you, Your Honor.

21 **THE COURT:** Anything that the lawyers want to bring up
22 with me before we adjourn for the day?

23 **MR. RICHTER:** Good afternoon, Your Honor. Cole
24 Richter for Sonos.

25 On the issue of Ms. Baily brought up concerning

1 Mr. Kowalski's deposition testimony that we plan to play
2 tomorrow, would it help the Court if we handed a clip report up
3 of the testimony?

4 **THE COURT:** Yes, it would.

5 **MR. RICHTER:** Okay. Great.

6 **MS. BAILY:** Your Honor, the issue is just that the
7 witness doesn't actually give any testimony.

8 **THE COURT:** Can I see the Q and A before I rule?

9 All right. I'm looking at something for Tim -- is he the
10 one that was deposed recently?

11 **MR. RICHTER:** That's correct, Your Honor. Monday.

12 **THE COURT:** Where in this document should I look?

13 (Pause in proceedings.)

14 **MS. BAILY:** So one example, Your Honor, is...

15 (Pause in proceedings.)

16 **MS. BAILY:** So, one example, Your Honor, is at 92:02
17 to 92:09, and it's on page 6 of 8.

18 (Pause in proceedings.)

19 **THE COURT:** All right. I see 4/8.

20 **MS. BAILY:** It's on page 6 out of 8.

21 **THE COURT:** I see a 4 out of 8.

22 **MS. BAILY:** The bottom right.

23 **THE COURT:** 6 out of 8? Say it again.

24 **MS. BAILY:** 92:02 to 92:09.

25 (Pause in proceedings.)

PROCEEDINGS

1 **THE COURT:** Well, this is preceded by, quote (as
2 read):

3 **"QUESTION:** Do you have any understanding as to whether
4 this declaratory judgment action alleges that Google did
5 not infringe the '966?

6 **"ANSWER:** I believe, this document is Google seeking
7 declaratory judgment of noninfringement of the '966
8 patent.

9 **"QUESTION:** Do you know when Google formed a basis as to
10 its belief that it did not infringe the '966 patent?"

11 Well, that -- that's not necessarily privileged. Is there
12 more than that one or --

13 **MS. BAILY:** I believe there's a few more following.
14 Like, for example, at 92:20.

15 **THE COURT:** Who is Mr. Nardinelli? Is he here or she?

16 **MS. BAILY:** Not here.

17 (Pause in proceedings.)

18 **THE COURT:** When are you planning on -- let me ask
19 some preliminary questions.

20 When are you planning on introducing the declaratory
21 relief complaint?

22 **MR. RICHTER:** Tomorrow, Your Honor, with this witness
23 and perhaps with Ms. Kwasizur.

24 Let me clarify, if I may. It will be introduced via the
25 video that we plan to play, and then I'll move it into evidence

PROCEEDINGS

1 after that video plays.

2 **MS. BAILY:** There are some earlier Q and As as well.

3 **THE COURT:** There's what?

4 **MS. BAILY:** There's some -- so I started in the
5 middle. I just picked one, but there's some earlier Q and As.

6 **THE COURT:** Well, what's going to be your explanation
7 to the jury for what I'm going to allow the other side to say
8 to the jury is that you have to have -- under Rule 11, have to
9 have a good faith basis for everything in that complaint?

10 And so that would have implied that you did your homework
11 on all of these patents and all of the accused products.

12 Now, you're -- you're going to say something in your
13 closing argument. If it in any way implicates these points
14 that he wants to get into, he should get the chance to show
15 that you've stonewalled through the attorney-client privilege
16 and that you won't reveal this. I'm not even saying that the
17 privilege would apply, but that's where I see this headed.

18 **MS. BAILY:** Can we include this in the briefing,
19 Your Honor, about all of these issues tonight?

20 **THE COURT:** Right now I'm going to allow all of this
21 in; but if you convince me overnight that it shouldn't come
22 in -- I recognize it -- I'm not even sure it's -- now, isn't
23 not that the -- it's not -- it's not the answers.

24 What I feel is most important here is for the jury to know
25 that the Plaintiff tried to get whatever answer you're going to

PROCEEDINGS

1 come up with and you stonewalled him in the discovery and,
2 therefore, he couldn't -- what's he going to say? He tried.
3 You wouldn't give it to him. You invoked the privilege.

4 So maybe the privilege applies. Maybe it doesn't. I
5 don't know. But that's what you said here. On some of these
6 things I don't think it would apply.

7 And so the -- then you're going to say something to the
8 jury to -- because it is a good argument, the declaratory
9 relief thing, which you never should have filed except you-all
10 ran off half-cocked in order to try to anchor venue here in
11 San Francisco. That's what was going on.

12 But, nevertheless, if that's what you want to say to the
13 jury and let them know you violated Rule 11, God bless you.
14 I'm going to let all of these in unless you convince me
15 overnight. So there we are.

16 **MR. RICHTER:** If they do convince you overnight,
17 Your Honor --

18 **THE COURT:** What?

19 **MR. RICHTER:** If they do convince you overnight,
20 Your Honor, may we call Mr. Kowalski to the stand and ask him
21 these questions?

22 **THE COURT:** I don't know. I don't know. Wouldn't he
23 give the same answers?

24 **MR. RICHTER:** I believe they would invoke the same
25 privilege.

PROCEEDINGS

1 **THE COURT:** Then I'm not sure that's the solution to
2 anything.

3 **MS. BAILY:** Your Honor, obviously we believe all of
4 this opens the door to all of these issues.

5 **THE COURT:** Opens the door to what?

6 **MS. BAILY:** Opens the door to the issues of the other
7 patents in the -- because -- well, we should take it up in
8 briefing tonight, but --

9 **THE COURT:** That's a fair point. Let's make sure of
10 that.

11 If you do what I just laid out, then the other side can
12 put their lawyer on the stand subject to one big problem, which
13 is that you wouldn't answer those questions, but ordinarily
14 would be able to put their lawyer on the stand and say, "Look
15 at what Sonos did. Six hours before they filed this thing,
16 they gave us all these things, and we felt that -- we were all
17 rushed. We had to work all night. We got this declaratory
18 relief thing on file because we didn't want to be in Texas and
19 we wanted to be in our home court. And so we -- that's why we
20 did it. It's all Sonos' fault. And, by the way, look at all
21 these claims and a lot of them have been -- the patents have
22 been thrown out."

23 I wouldn't allow them to do that normally. What is the --
24 the wrinkle here is that they wouldn't answer those questions.
25 So I am not certain -- I'm not going to rule on that piece of

1 that yet. You might be opening the door. You might be opening
2 the door to the very thing you don't want to come in.

3 But you would have to have a lawyer on the stand, maybe
4 you, after you've been sitting here with the jury explain to
5 the jury why you did it, and maybe I would allow that.

6 But I -- I feel -- I feel a little -- if you're going to
7 do that and open the door to what your thinking was, well, then
8 the lawyers have got every right to ask you those questions
9 about how much homework you did and what did you know, how long
10 did you know about these patents.

11 **MS. BAILY:** Your Honor --

12 **THE COURT:** They would -- it would be a field day with
13 Ms. Baily: How long, Ms. Baily, have you known about these
14 patents? When did you first start looking at that?

15 I would allow that because you're opening the door
16 yourself to explaining why you had to rush into court.

17 So that's the best I can do right now. I'm going to allow
18 all of those questions unless something comes up. Maybe it
19 does open the door to the things that Sonos doesn't want to
20 hear.

21 **MS. BAILY:** Your Honor, just to be clear, the briefing
22 is due at 8:00 p.m. tonight I think you said a few different
23 times, so I just want to clarify for the record --

24 **THE COURT:** 8:00 o'clock is good with me.

25 **MS. BAILEY:** Thank you.

PROCEEDINGS

1 **THE COURT:** I won't read it before tomorrow morning,
2 but my law clerk who gets no sleep because of you and will be
3 up until midnight probably. Maybe not. I don't know.

4 Anything else? I've got another calendar to go to. Is
5 there anything urgent right now?

6 **MR. PAK:** No, Your Honor.

7 **MR. RICHTER:** Nothing for Sonos, Your Honor.

8 **THE COURT:** I'm going to give the court reporter about
9 ten minutes, and then we'll resume with the Alameda case.

10 **THE CLERK:** Court is adjourned.

11 (Proceedings adjourned at 1:11 p.m.)

12 ---oOo---

CERTIFICATE OF REPORTER

I certify that the foregoing is a correct transcript
from the record of proceedings in the above-entitled matter.

DATE: Thursday, May 11, 2023



Marla F. Knox, CSR No. 14421, RPR, CRR, RMR
United States District Court - Official Reporter